Grosvenor Square. From an Old Engraving.

THE PLANNING AND LAYING-OUT OF PUBLIC PLACES.

By H. Inigo Triggs [*A.*], *Godwin Bursar* 1906.

Read before the Royal Institute of British Architects, Monday, 15th November 1909.

SOME five years ago two papers of considerable interest on the planning of cities and public spaces were read in this room by Mr. John W. Simpson and Professor Beresford Pite.* The papers, as the writers said, were intended to touch only upon the fringe of the subject and to induce further investigation.

Mr. Simpson outlined in his paper some of the lessons to be learnt from a study of classic and mediæval places; the value of grouping buildings around well-defined centres, and also that of grouping these centres themselves; the importance of arranging streets to enter at the angles instead of in the centre of a place; the suitable enclosure of the place on all sides, &c. These and many other lessons are equally applicable to any form of place in the present day. But while we do well to take to heart these lessons from the past, we must beware that we are not led to imitate too blindly the planning of places adapted to requirements having little in common with modern traffic demands. The advent of the newspaper may be said to have abolished the principal reason for which the mediæval public place existed—namely, to hear and discuss the news of the day, and listen to the reading of public proclamations. In like manner since the gorgeous ecclesiastical ceremonies of the Mediæval and Renaissance Church are things of the past, the great church places have no longer the same *raison d'être*.

Time will not permit of my attempting to sketch the historical evolution of public places in the past, and moreover this part of the subject has been dealt with in Mr. Simpson's interesting paper to which I have already referred. Neither am I able to deal this evening with the planning of public parks and larger areas, but I propose to confine myself to what is perhaps the more strictly architectural side of the subject and to consider the planning of public places from a modern point of view.

A demand has arisen for new types of public places for traffic—places that shall effectively receive and distribute streams of vehicles with safety to pedestrians; for monumental and

* Journal R.I.B.A., 8th April 1905.

garden places that shall show to the best advantage the buildings that surround them, and for places that shall be useful at the same time for military parades, exhibitions or sporting purposes, sanded or turfed and surrounded by trees, such as the Champ de Mars.

Aviation is making rapid strides, and, as M. Hénard has recently pointed out, the necessity for trial grounds and alighting places will soon make itself felt. I hope that I may not be considered too visionary in suggesting that the day may be not far distant when Hyde Park itself will furnish the site for a new form of place, the aviation place, with gigantic sheds able to accommodate a fleet of dirigibles.

But to return from these flights of fancy to solid ground, let us consider some of the more important lessons that may be learnt from a study of town planning in the past. I think that one of the first is the value of grouping buildings round definite and fitting centres. Sir Christopher Wren strongly emphasised the importance of this in making his plan for the rebuilding of London. He placed a spacious *rond-point* at Ludgate Circus from which eight streets were to radiate, a triangular space opening up the fine vista of St. Paul's Cathedral, a monumental place at the Royal Exchange, together with five other controlling places at important traffic junctions.

In classic cities the Agora and the Forum invariably formed fitting centres for the grouping of the principal public buildings, and in mediæval towns we always find the public places dominated by some great church or public building. The "Grande Place" at Brussels, with its Hôtel de Ville, the Market Place at Ypres, dominated by the glorious Cloth Hall, and the "Place Verte" beneath the spire of Antwerp Cathedral are all instances in point.

In replanning Paris Baron Haussmann and his successors fully realised that more depended upon the placing of structures than upon the structures themselves, for a noble building amongst mean and ugly surroundings is worthless in any scheme of town planning. Public buildings, standing as they do for the whole community, should represent its loftiest aims, its noblest sentiments, and its highest ideals. Paris has perhaps the most glorious civic centre in the world in the combination of the Louvre and the Tuileries gardens.

In the United States, starting with the examples of Washington and Cleveland, the town planners within the last decade seem to have realised how grand the effect of buildings arranged in a stately manner may be, and that the advantages to be gained by grouping public edifices are not only æsthetic but also tend to convenience and to simplicity of administration and maintenance. Numerous cities are now engaged in formulating plans for civic centres on the lines of Washington and Cleveland, where they seem at last to realise how much of the effect of important buildings is lost when they are scattered indiscriminately about the town, as is the case with the finest public buildings of London, almost without exception.

The principal civic centre should naturally be occupied by Government or municipal buildings. But as a city grows the necessity will naturally arise for the creation of many subsidiary centres or focal points connected by thoroughfares and scattered about as dictated by the topography. In this country opportunities for the creation of large civic centres are not likely to occur often, yet each year the growth of our suburbs creates the need for secondary subsidiary centres which require quite as skilful handling as the larger ones. Even the smallest public buildings may be so grouped as to harmonise and help one another both by colour and scale. As an illustration of what I mean I would draw your attention to a scheme put forward by Herr Karl Henrici [fig. 1] for providing a series of such focal points in the suburbs of Munich. It seems to me that in dealing with the future expansion of London it would be hard to find a more suitable model or one demanding less drastic alterations to existing streets than such a scheme as this.

In London we have, I fear, too often lost sight of the importance of enclosure to a public place. Hyde Park Corner, for example, would be much finer to my mind if the five

broad roads that enter it could be arranged to converge towards a large semicircular architectural place.

This sense of enclosure need not necessarily be obtained by means of architecture: often a fine effect may be made at very small expense by the skilful planting of trees; but where planting is substituted for architecture it should be of as formal a character as possible. In order to further obtain the effect of enclosure, the streets opening into the place should be as far as possible so planned that a vista is avoided and that the eye travels over the open space and rests on one of the boundary walls. We realise the lack of this desired effect in Piccadilly and Oxford Circus, where the sense of enclosure is entirely lost, first by the streets being taken straight through the place, and secondly by the large proportion of circumferences given up to the street openings.

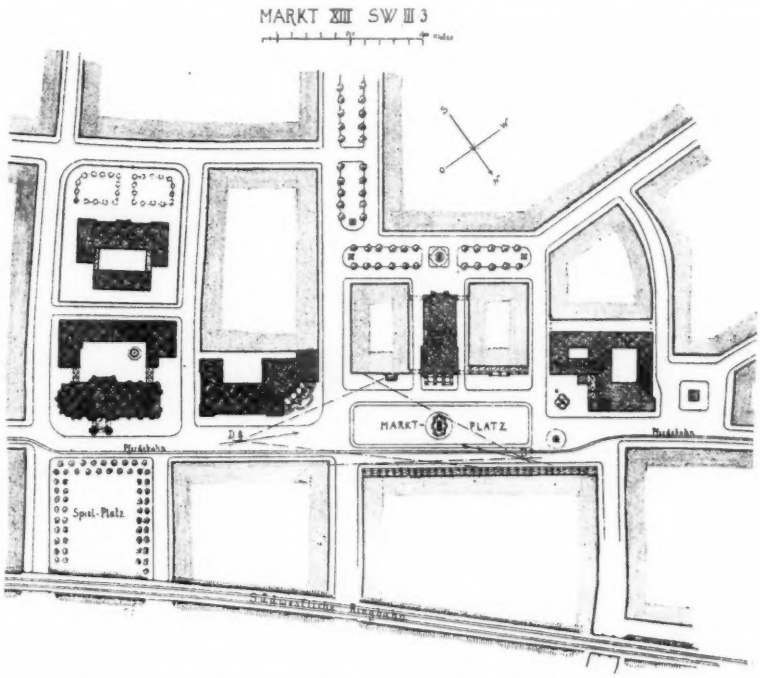


FIG. 1.—A TYPICAL CIVIC CENTRE IN HERR HENRICI'S PLAN FOR EXTENSION OF MUNICH.

Sitte and other writers have often insisted upon the importance of preserving and even creating an irregularity in public places, and although anything like a studied irregularity is hardly likely to be a success, much might be said against the folly of striving after a perfectly regular and symmetrical effect in places, even where they are surrounded by classic buildings. The Roman Forum should teach us this. The irregularities of ancient places (more noticeable on paper than in reality) proceed from their development, and generally from practical causes. The eye is always inclined to overlook the less apparent irregularities, and fails to estimate angles aright, though it readily appreciates the correctness of regular forms.

The public places of a modern city may be considered from three wide aspects—traffic, business, and ornament. In England the possibilities of treating traffic places as a means of properly intercepting and distributing traffic currents have not yet been fully realised, and it has generally been considered sufficient to place a few "islands" at those points where pedestrian traffic seemed to demand them.

The second class, viz. business places, includes those various types of place whose principal object is to facilitate the transaction of business, such as the market-place and the garage place in front of railway stations or similar points.

Ornamental places include all those laid out solely with the object of adding beauty to the

surroundings without any regard to traffic. We do not, of course, mean to imply that a traffic place may not be also a beautiful spot.

Architectural places include those which are designed to set off the surrounding architecture to its best advantage.

It frequently happens that the fulfilment of two or more different purposes is attained by one public place, as in the Place de la Concorde, Paris, which is both a traffic and an ornamental place, and also in some of the Parisian *ronds-points*, which, besides receiving and distributing

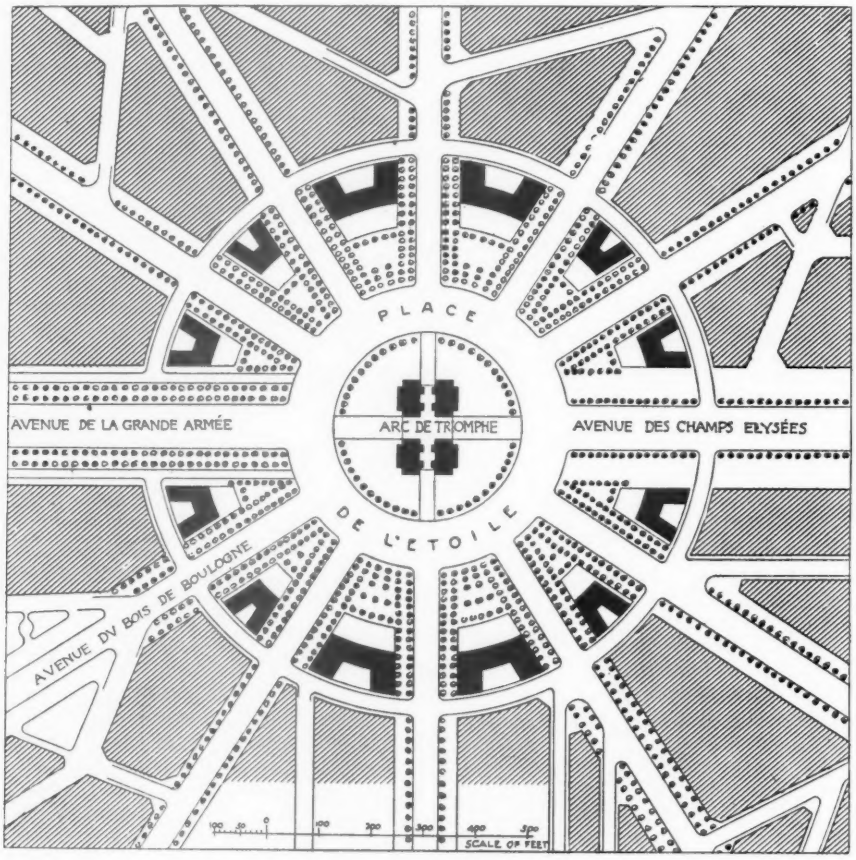


FIG. 2.—PLACE DE L'ETOILE, PARIS.

the traffic, are adorned with gardens, monuments, and fountains. The Place de l'Etoile is a combination of a traffic and an architectural place.

TRAFFIC PLACES.

The ideal form of town plan is the one in which the smallest number of traffic places occur, and it certainly does not add to the ease with which traffic circulates if it is continually being obstructed by a large number of streams converging to one point. But as we cannot do away with such places and must perforce regard them as a necessary evil, it only remains to guard

against the formation of useless traffic areas, and in planning such places to take the greatest care, first to estimate the volume and direction of the traffic, and then to regulate it by the disposition of the islands, whether they be the mere oval-shaped refuge or the more ambitious garden or monumental plot. For practical reasons it is desirable that the various lines of traffic should not intersect one another at one point, and where this is likely to be the case this point should be chosen for a pavement or grass plot. High monuments, or any objects likely to impede the drivers' view, are to be avoided in such a position.

A very favourite form of traffic place in modern continental cities is the *rond-point* or circus, upon which the thoroughfares converge like the spokes of a wheel. It has been much used where new quarters have to be united to old ones by thoroughfares, and its fullest development has been reached in such examples as the Place de l'Etoile and the Place de la Nation in Paris, planned at the western and eastern extremities of the city. Both were laid out as part of the scheme for dealing with the traffic of Paris, and also for the necessity under the Second Empire to facilitate the proper surveillance of the streets against riots. The Place de l'Etoile has a total width of 290 yards between the buildings, the central circular roadway having a width of thirty yards. In the midst of the place rises the magnificent Arc de Triomphe erected by Napoleon in 1806, from which radiate twelve important thoroughfares, varying in width from the Avenue des Champs Elysées, 90 feet wide, to the Avenue de Iéna, which is only 45 feet wide. In addition to the footpath there is a broad gravelled space planted with trees. The surrounding buildings are of one uniform style of architecture, which by a special ordinance of the city can never be changed. An interesting feature of the Place de l'Etoile is the outside ring of side streets, designed to relieve the traffic and to give additional access to the large blocks of buildings surrounding the place. Where the *rond-point* is of so large diameter as in this case, it is a convenient form for the traffic place; but where the diameter is smaller, and insufficient to allow for the secondary relieving street, the form can hardly be recommended. The circular enclosing line then becomes inconvenient for buildings, vehicles moving to one point interfere with each other, and pedestrian traffic must either cross the whole space between the moving vehicles or take a circuitous route on the footways round the place, unless there be a central island and subsidiary side ones. This brings us to the consideration of an ingenious arrangement known as gyratory regulation, first proposed by Mr. Holroyd Smith some few years ago. For reasons which I confess I am unable to understand the system does not meet with the approval of the powers that be. M. Hénard, who has strongly advocated the system in Paris, lays down the rule that the width of the circular roadway should be one quarter of the total widths of the streets entering the place. I venture to make a suggestion showing the gyratory principle

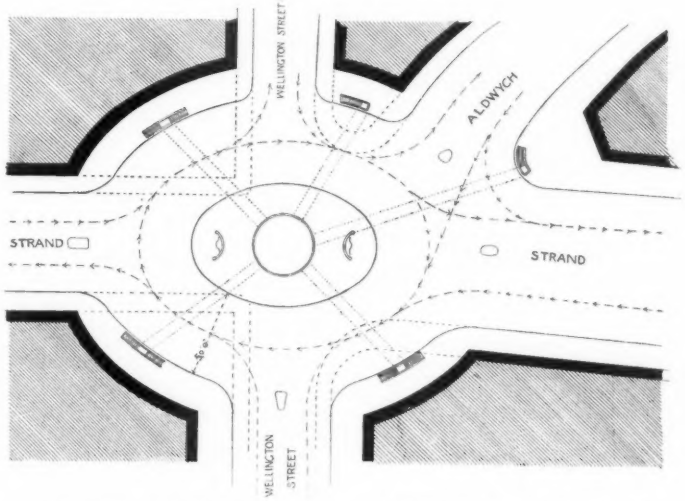


FIG. 3.—SUGGESTED TRAFFIC PLACE AT JUNCTION OF WELLINGTON STREET AND THE STRAND, SHOWING APPLICATION OF GYRATORY SYSTEM.

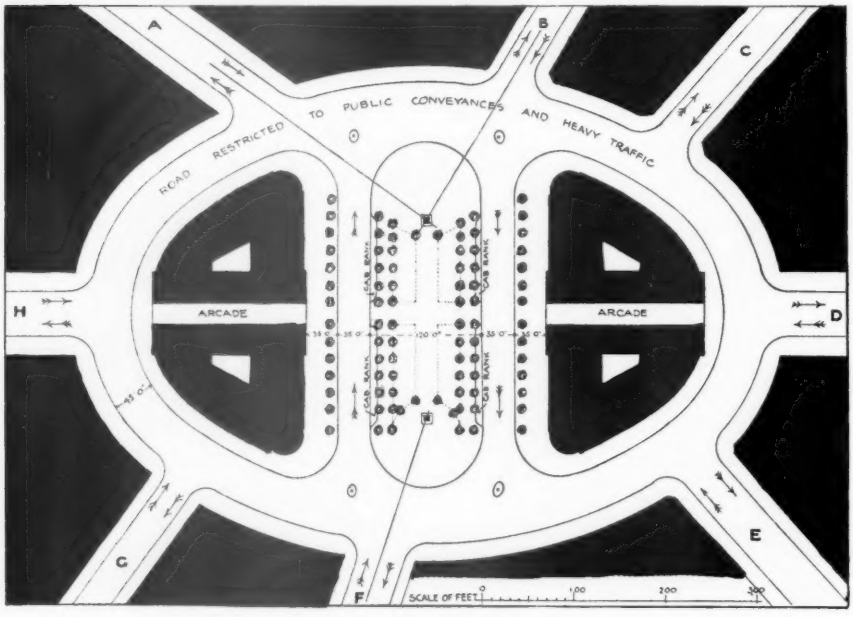


FIG. 4.—DESIGN FOR A TRAFFIC PLACE.

applied to what is one of the most important traffic crossings of London—the junction of the Strand with Wellington Street [fig. 3], where the loss involved by traffic being held up is said to amount to over 7,000*l.* a year. In this case it would be necessary to acquire property at three of the corner plots. I have indicated underground passages for pedestrians, but although they have been adopted in several congested points of London and Paris, the system has yet to be proved a success; they do not seem to be much used when provided, as apparently the mere fact of having to go down a stair keeps the majority of passengers on the surface.

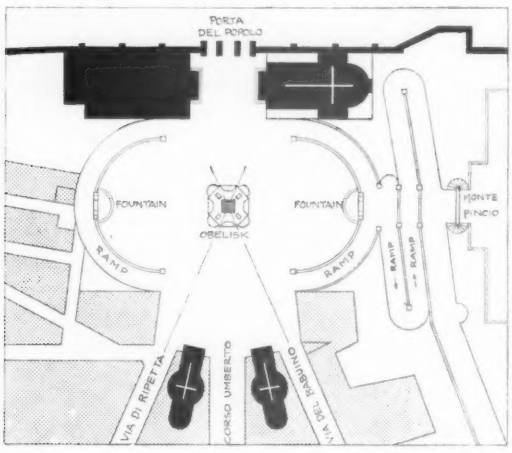


FIG. 5.—PIAZZA DEL POPOLO, ROME.

It is often impossible to avoid four or five streets converging. Where this happens, instead of directing them towards a central point, it is better to form an oblong or an elliptical place, both of which forms are preferable for dividing the circulation of traffic. The Place de la République, Paris, is a good example of an oblong traffic place; it measures about 325 yards by 130 between the buildings, with seven main thoroughfares entering, three at one end, two at the other, and one at each of the long sides. The whole of the centre of the place is occupied by a broad promenade with a fine central monument, two fountains, and double rows of trees. Where it is essential to restrict the area that can be devoted to such a place, a plan upon an oval form

might well be adopted. Fig. 4 shows a design for a traffic place entered by eight thoroughfares and occupying an area about two-thirds that of the Place de l'Etoile ; the centre is laid out as a broad promenade with a double row of trees, and monuments are placed at either end in such positions that they form vistas for streets A, B, and F. Tramways and omnibus routes would be restricted to the outer ring, and the traffic circulating through the central place would be divided into two streams. Any little inconvenience that this might involve in setting down would be compensated for by the increased speed due to the traffic being kept in one direction. Ample space is provided at those points where cross-currents occur, and islands are

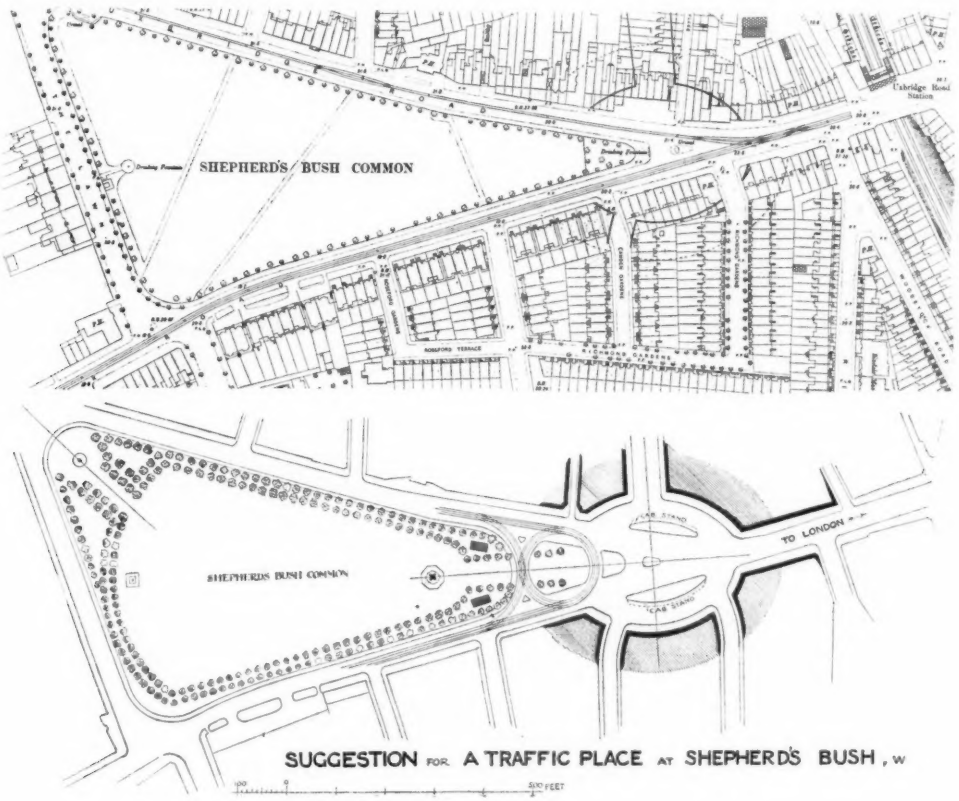


FIG. 6.

placed for pedestrians and to help control the traffic currents. Cab ranks are within easy hail underneath the trees of the central island and well out of the way of traffic. The central building blocks would be most valuable for shops, and would contribute considerably to the cost of the scheme, the two arcades being particularly well placed for business on one of the principal lines of traffic.

The half-circle is another suitable form for a traffic place, particularly where traffic coming from one direction has to be spread out, as at the principal entrances to towns, railway stations, bridge approaches, &c. The Piazza del Popolo, Rome [fig. 5], is a good example of this treatment, with an additional charm due to the clever handling of the surrounding architecture.

It frequently happens that where two important lines of traffic converge to a point, upon what may perhaps have been the boundary of a city, a triangular public place is formed and devoted to the purpose of a village green. I have noticed many such places, and there is one that will no doubt occur to many present, at Shepherd's Bush. Such a position as this would form an ideal situation for a well-planned traffic place. At the present time, I suppose because the tramway company and the local authorities are unable to come to some better agreement, the stampede that takes place at this point at busy times becomes almost a free fight, and tram after tram has to be laboriously shunted from one line to the other, instead of proceeding in an orderly continuous procession. An improvement might be effected with little difficulty upon the lines that I have sketched. This point, forming as it does the junction of the two

FIG. 7.—BAHNHOFPLATZ, HANOVER.

great lines of traffic on the west side of London, is already a most important local point. Within the next few years a large increase in traffic is certain to take place, as waste land to the north becomes developed. At present the tram lines are brought right into the thickest part of the traffic, but by the scheme I have suggested it would be possible for an ever-moving line of trams to circulate easily over the two systems to Ealing and Kew. Much of the property that would be required is now of quite an unpretentious character, but is likely to increase very considerably in value.

BUSINESS PLACES.

The various kinds of places devoted to business or pleasure, in which are included market-places, exchanges, and places for public shows and festivals, form a direct contrast to the places we have just been considering in that all through-traffic, both vehicular and pedestrian, is excluded. In the larger towns of England and on the Continent open markets have gradually

given place to closed ones; but in smaller towns and in suburban areas, where a demand still exists, they should certainly be encouraged, for, besides being a valuable municipal asset, if properly planned, they may confer great benefits upon all classes. Plenty of trees should be planted round the sides and in the centre, and every effort made to render the place attractive as a promenade, as well as a useful centre for shopping. It might also be possible to lay out such a place so that, in addition to being a market by day, it might be used for entertainment purposes in the evening, after the manner of some of the small Spanish *alamedas*. The long stretch of the Piazza Navona in Rome, adorned with three magnificent fountains, used as a

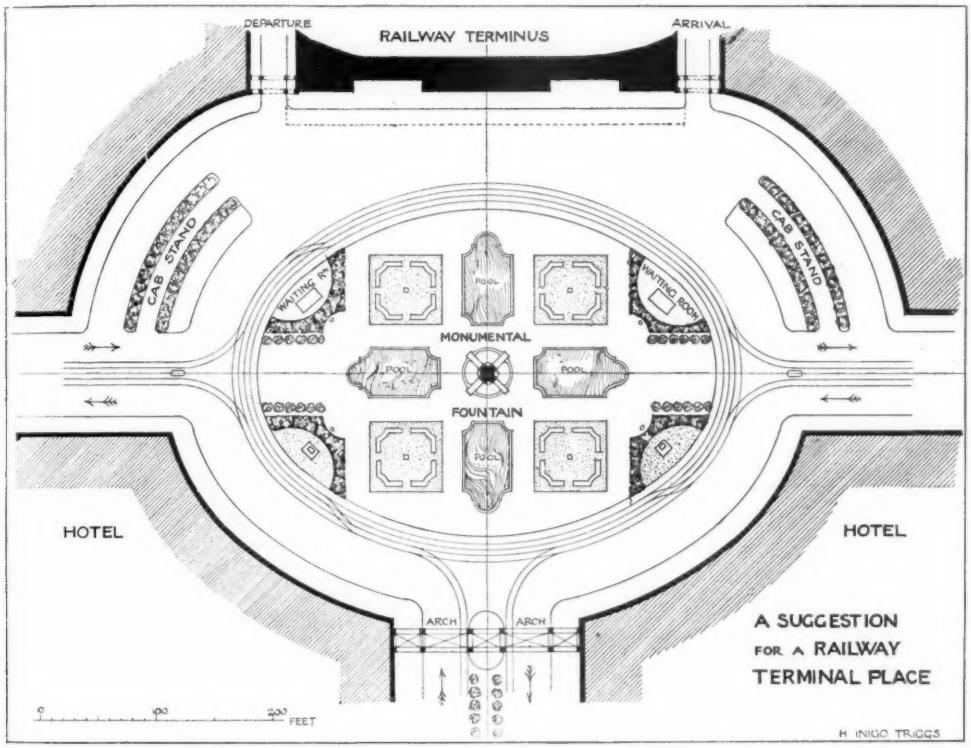


FIG. 8.

market by day, is illuminated and rendered charmingly attractive as a public dancing place by night.

The type of business place which on the Continent is known as the garage place, generally planned in front of railway stations, is almost unknown in this country. The railway station is the main entrance to the city, and as such it has taken the place of the old city gates. In America the Railway Corporations are realising that it pays to make station surroundings attractive, and many of the large European cities, like Hanover, Turin, Basle, and Milan, have laid out their garage places in a strikingly beautiful way, in order that the first impression of strangers arriving by rail may be a favourable one. The Bahnhofplatz at Hanover is in many respects a model of its kind; the place is semicircular in form, and for the better circulation

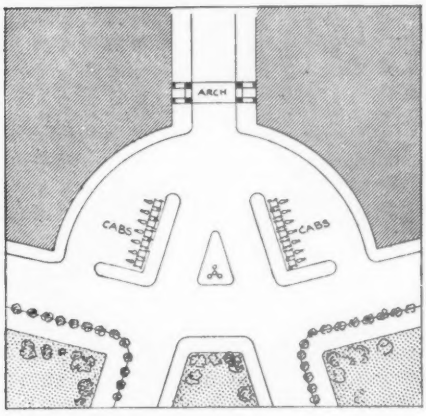


FIG. 9.—KARLSPLATZ, MUNICH.

of traffic the central part is laid out as a garden. Three large thoroughfares converge to the outer part of the place and take the traffic to either side of the station, the central roadway being reserved for cab-stands and smaller vehicular traffic. As in most cities on the Continent, the railway place is the principal starting place for the entire tramway system of the town.

I have made a suggestion [fig. 8] for a terminal place in front of a station about the size of Victoria. Cab-stands are arranged upon either side to take a double row of vehicles easily within hail and at the same time not too much *en évidence*, being partly screened by trees. The tram lines are planned so that this traffic may be kept continually on the move. Those who know the station place at Milan, or the wonderful way in which the trams are planned to circulate in the fine square in front of the cathedral in the same city, will realise how important this point is. The centre is laid out as an oval garden, with a monumental fountain placed as a termination to the principal vistas. Waiting rooms for trams form part of the design, and a monumental archway gives a sense of enclosure and affords a worthy entrance to a city.

Another form of garage place which is badly required in all our cities is a properly equipped place for the hiring of vehicles. In planning city extensions and improvements all provision for this kind of place is invariably omitted, and for want of better arrangement vehicles

FIG. 10.—PLACE DE LA CONCORDE.

for public hire are placed in the centre of roadways or allowed to block up the sides. A good plan is that of the Karlsplatz at Munich, where the cabs are arranged in a kind of recess easily accessible from the footway.

PLACES PARTLY SURROUNDED BY BUILDINGS.

The Place de la Concorde, Paris, is a good example of a place partly surrounded by buildings. It is planned at the crossing of two important axial lines, north and south from the Madeleine to the Chambre des Députés, and east and west from the Tuileries to the Arc de Triomphe. Though smaller in area than the largest in Berlin and Vienna, it is one of the finest examples of a monumental place in the world. The place has passed through many phases since it was first laid out; the statue of Louis XV. that formerly stood in a central position was destroyed during the Revolution, and in 1836 the Obelisk of Luxor and the two monumental fountains were erected in the centre. The traffic requirements forced Haussmann, to his great regret, to fill up the sunken parterres. The place is bordered by a monumental balustrade, with two large stone figures at each of the four angles representing the chief towns of France, and twenty bronze rostral columns complete the decoration. The densely planted trees on the sides of the Tuileries and Champs Elysées take the place of an enclosing frame.

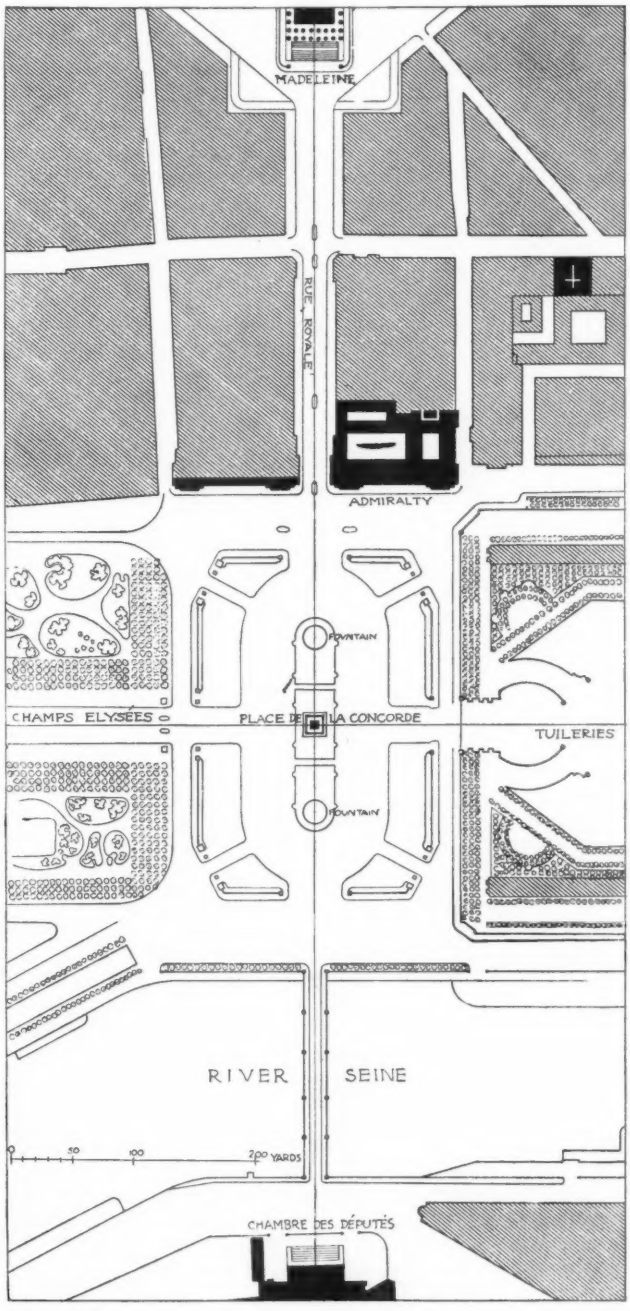


FIG. 11.

PLACES ENTIRELY SURROUNDED BY BUILDINGS.

Public squares that are entirely surrounded and enclosed by buildings are likened by Stübben to the salons of a town, just as the streets may be compared with the passages, the traffic places with the lobbies and halls, and the garden squares with the living rooms, of a house. Such squares do not require a long street vista to set them off properly; it is better that they should rely for their effect entirely upon their own architecture, a suitable grouping of the buildings, and a due sense of proportion between the height of the buildings and width of the place. The surrounding architecture, whether regular or irregular, should be regarded as the frame to a picture; the street openings breaking into it should be as few as possible, and where it is impossible to avoid a number of openings some of these might well be bridged over. A regularity of form is by no means essential, and indeed is often very difficult to discern; thus, in St. Mark's Place at Venice we see how deceptive such a plan may be when put on paper, for to the majority of observers it would be impossible to detect that the length of the two shorter ends is not identical. In a formally laid-out place, the architecture should be formal and grouped, though of course not necessarily of one identical pattern. A geometrically laid-out place, enclosed within parallel lines, is an artificial and formal creation, and to give it its full effect requires artificial and formal buildings. Where such a place is not designed on formal lines, and, as in the case of most of the old market-places on the Continent, an irregular and picturesque character dominates the site, the surrounding buildings should themselves partake of that character. But every enclosed place should belong definitely to one type or the other, and any attempt to blend the two is hardly likely to be a success.

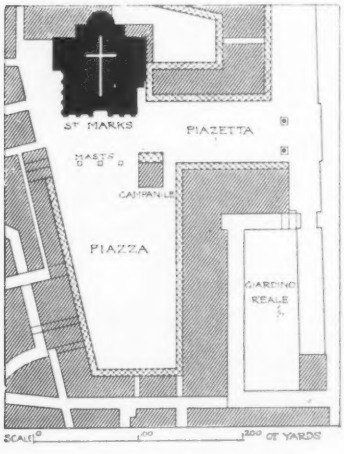


FIG. 12.—ST. MARK'S PLACE, VENICE.

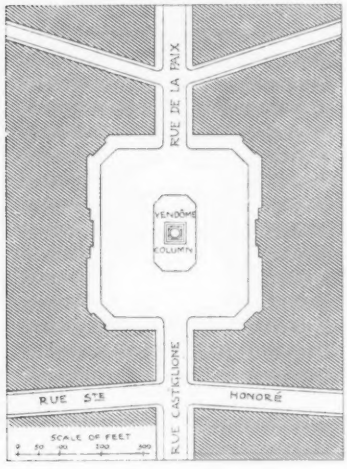


FIG. 13.—PLACE VENDÔME, PARIS.

The oblong form is that most generally used for an architectural place, and an agreeable proportion between the long and short sides is one to three. The square form is also pleasing, especially if the streets enter at the four corners. The triangular form is not often used for an architectural place. Circular places are generally too regular and geometrical to be pleasing, and the oval form is better both from the point of view of circulation of traffic and also as being more adapted to the display of monuments. As we have already seen in the Piazza del Popolo, two semicircles combined with straight sides produce a fine decorative effect.

The Place Vendôme, Belgrave Square, and the Amalieborg Platz, Copenhagen, illustrate the effect of placing the four corner buildings at an angle of 45°. In the Place Vendôme the centres of the long sides are emphasised by slight projections which serve to break up the monotony of the skyline. A fault in the planning of this square is the danger to pedestrians of having to cross a wide area of roadway, unless they

care to walk all round the footways. This arrangement is inevitable where the centre of such a square is occupied, as here, by a monument. The same remark applies to the Amalieborg Platz, where, however, the inconvenience is not so severe, on account of the smaller amount of traffic. In both these examples the size of the place has not been exaggerated, and the relative proportion between the height of the buildings and the area of the square is pleasing. The result of scattering the buildings is shown in the Königsplatz, Munich, where the width of the place is very much exaggerated, and the three monumental buildings would appear to better advantage if the width had been lessened to about two-thirds its present dimension, and if at the same time a better frame had been provided and the awkward-looking angles filled in with architecture. In the Lustplatz, Berlin, where the surrounding buildings were scattered, the

FIG. 14.—LUSTPLATZ, BERLIN.

necessary framing has been imparted by a double row of high trees, and the vehicular traffic has been diverted to either side, leaving the whole of the centre part for gardens and promenade.

The Maria Theresien Platz, Vienna [figs. 15, 16], is largely laid out as a monumental garden place, particularly suited to its purpose of rendering the two museums on either side free from dust and noise. In the centre is the monument to Maria Theresa, with well laid out parterres and fountains. Gottfried Semper prepared a scheme for continuing the place and including the Hofburg buildings which, if ever carried out, would make this the largest and finest architectural place in the world.

The idea of an architectural square of uniform buildings probably originated in Paris, where the Place Royale was laid out by Henri IV. in the early years of the seventeenth century. It is an exact square of 152 yards, and the surrounding architecture and arcades still retain much of their original character. The Place des Victoires, laid out from Mansart's designs in 1685, was another regularly laid out place ; at intervals of every ten feet or so Ionic

FIG. 15.—MARIA THERESIEN PLATZ, VIENNA.

pilasters supported the cornice, and the vertical lines effectively broke up the curved surface; the angles of the streets entering the circus had strongly marked rusticulations. Unfortunately it has not preserved its architecture intact to the present day, and has been completely spoiled in consequence. The district appears to have fallen upon evil times, with the result that the owners of the houses have made no attempt to adhere to the original design. This is, of course, the great danger in architectural squares belonging to many different owners, unless, as in some of the more important Parisian examples, an ordinance forbids owners to deviate from one design.

From France the idea of the Place Royale was soon imitated in London, where, about 1620, a Commission was appointed by the Crown to "plant and reduce to uniformity Lincoln's

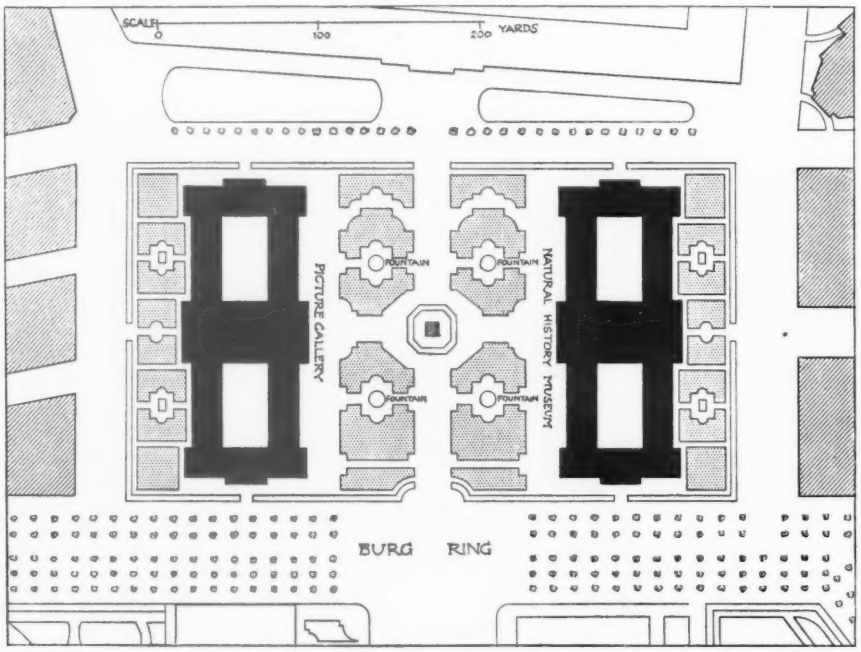


FIG. 16.—MARIA THERESIEN PLATZ, VIENNA.

Inn Fields as it shall be drawn by way of map or ground plot by Inigo Jones." Like the Place Royale, it was proposed to surround the square with private houses, forming one continuous façade, broken only in the centre and at the angles by buildings rising slightly above the rest. A few years later the idea was imitated in a grander form in the piazza of Covent Garden, where an arcade was carried along the whole of the north and east sides; the church completed the west side, and the south was enclosed by trees. The idea, once started, soon grew into favour, and towards the end of the eighteenth century an increasing demand for dwelling-houses of a more stately character resulted in many large London estates being dealt with as a whole. The usual plan was to form a large open square, to plant trees and shrubs therein, and to design the houses with a view to their architectural symmetry.

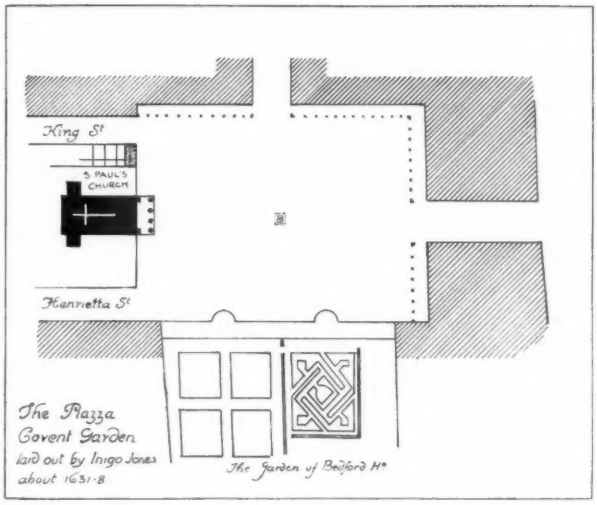


FIG. 17.

FIG. 18.—COVENT GARDEN PIAZZA. FROM A DRAWING BY T. SANDBY.

FIG. 19.—JARDIN DE LA FONTAINE, NÎMES.

PLACES LAID OUT FOR PURPOSES OF ORNAMENTATION.

There is this great difference between a garden place and the other types of public place. The latter, traversed in all directions by currents of traffic, may be as dusty and noisy as the street itself; but the garden place is essentially a place of repose and a retreat from dust-laden streets, and should be treated as such.

To make any attempt at landscape gardening in a town square bounded on all sides by solid blocks of buildings seems hardly likely to be a success. The treatment of such a square should be in architectural and formal manner. Any embellishment that it may receive should be monumental in character, such as stone terraces and steps, monuments and statues arranged in harmony with the environing buildings, and disposed in such a way that they will not conflict with the usefulness of the place. If the space permit, a rectangular alignment of shade trees could be introduced, with just sufficient amount of turf at their base to protect the roots from too hard a surface and also to soften the harshness arising from an expanse of stone or asphalt paving. But the introduction of turf or trees should be completely subordinated to the

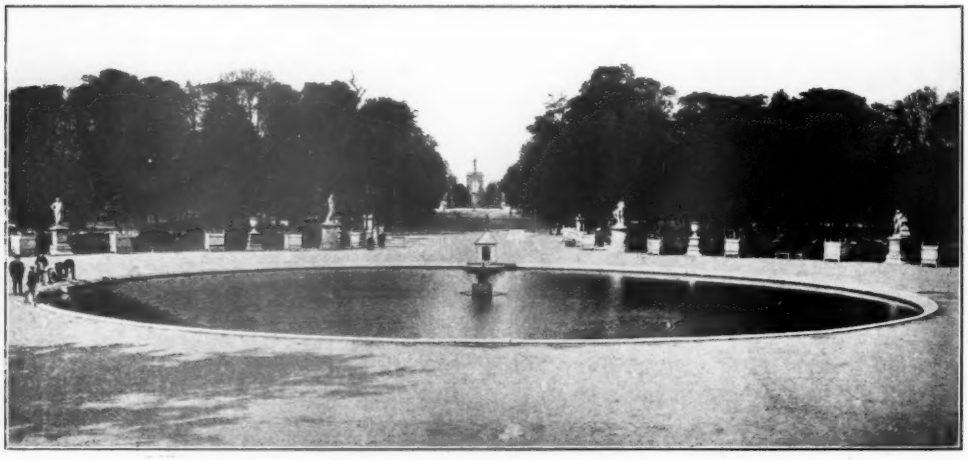


FIG. 20.—GARDEN OF THE TUILERIES.

architectural character of the place, and should be so carefully arranged that the walking space should remain practically undisturbed.

When we remember how country-loving a person the average Englishman is, and that English private gardens are undoubtedly the finest in the world, it is certainly surprising that so little is done towards making our public places more attractive by the planting of trees, shrubs, and flowers. In London squares as they now exist nothing is more noticeable than the want of colour. We see them invariably surrounded by a dense and forbidding mass of lilac, and the principal object of their existence is to shut out all view of their lawns from the gaze of the passer-by. Even in those squares that have been handed over to the public care the tradition of reserve is still kept up, and of colour and flowers there are none. Of course, brilliant flowers will not flourish under spreading trees, but there are plenty of openings and spaces which a skilful gardener could utilise.

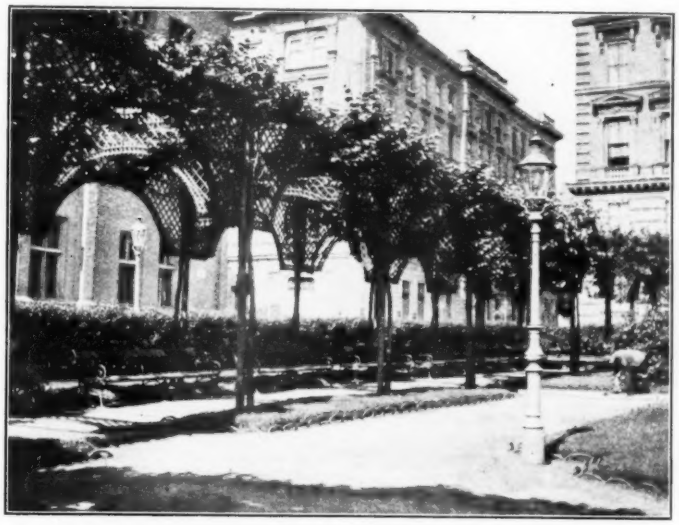


FIG. 21.—TREILLAGE SURROUNDING BEETHOVEN PLATZ, VIENNA.

An idea well worth considering is shown in fig. 21, illustrating the treillage screen surrounding the Beethoven Platz, Vienna. In this case treillage has been used with remarkable effect to enclose the place until the limes have had sufficient time to grow up; the treillage will then be removed, and the trees will form a kind of green cloister round the place.

PLACES PLANNED AS FORECOURTS TO PUBLIC BUILDINGS.

Forecourt places are particularly valuable as a means of exhibiting the architecture of an important public building to its best advantage. It is inadvisable that important buildings should be erected in a line with the frontages of the other buildings in the street; and if it is possible to set them back somewhat, an air of greater importance is imparted, and at the same time they gain considerably by being seen in a more favourable perspective. In France the forecourt (*cour d'honneur*) is a very favourite device, and few important public buildings are planned without it. For such buildings as churches, museums, or art galleries a forecourt ensures greater quietude and freedom from dust. Herr Brinckmann has pointed out * that classic places differ from mediæval in being almost always treated as forecourts. A fine example of such a place is that planned in front of the Farnese Palace, where several broad streets lead up to a well-proportioned place. The vista extending on both sides of the palace enables the spectator to obtain a fine view of the front elevation in sharp contrast to the side perspective. The small *piazze* in front of the churches of S. Maria della Pace and S. Ignazio

* A. E. Brinckmann, *Plätze und Monumente*, Berlin, 1908.

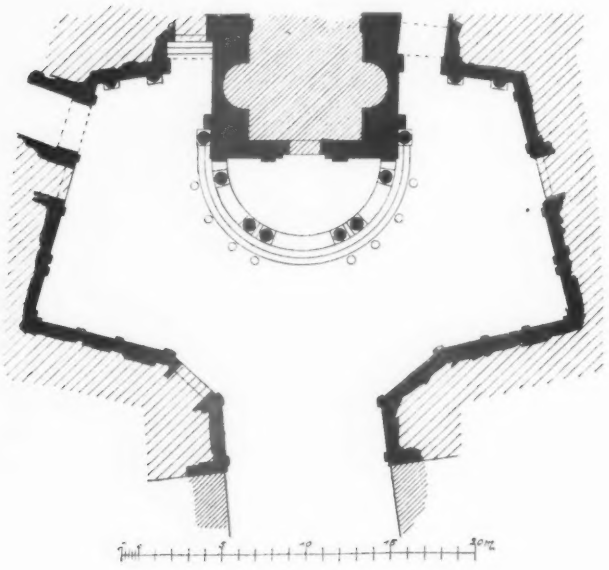


FIG. 22.—PIAZZA S. MARIA DELLA PACE, ROME.

in Rome are both interesting examples of smaller Renaissance forecourts; the former, planned in 1656, is largely occupied by the semicircular portico of the church. The approach to the church of S. Ignazio has been so contrived that the sense of enclosure has been retained by dividing the main approach into two minor ones.

The finest and most monumental place of this kind in the world is that which Bernini planned in front of St. Peter's [figs. 24, 25]. The place consists of three parts—the Piazza Rusticucci, surrounded by hotels and shops; the large oval piazza, 370 yards by 260; and beyond that a forecourt with steps leading to the principal entrance. The great piazza is enclosed with an open double colonnade, and the forecourt with a closed *loggia* of grandiose proportion. The ground level of the oval place falls slightly to the centre; but, beyond, it rises towards the entrance to the cathedral.

It was originally the intention of Sir Christopher Wren to surround St. Paul's Cathedral by a colonnade similar in treatment to Bernini's; fig. 26 shows the design which he made for this scheme, taken from a plan preserved in the Soane Museum. The junction with Fleet Street was well contrived, and had the funds been forthcoming at the time the appearance of St. Paul's Cathedral would have been immensely improved and its precincts rendered more secluded. At Naples the Piazza del Plebiscito is an example of the enclosed colonnade treatment on a large scale, but it suffers somewhat from the insignificance of the central architectural feature, the church of San Francesco di Paolo.

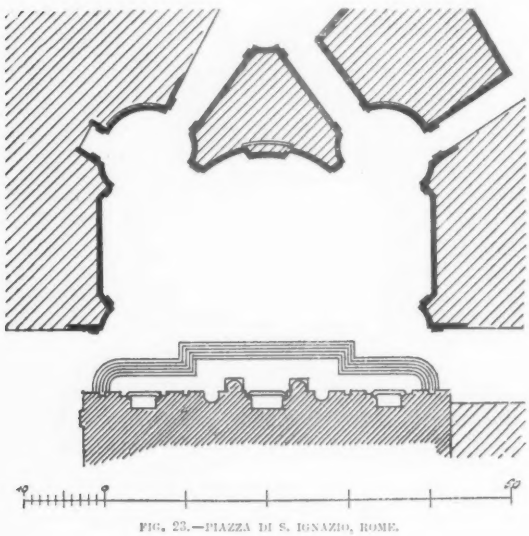


FIG. 23.—PIAZZA DI S. IGNAZIO, ROME.

Another example of a forecourt place, though planned on a more humble scale, is the Place de la Trinité, Paris [fig. 27]. As at St. Peter's, it shows the good result of raising the monumental building well above the surrounding ground level. In

FIG. 24.—PIAZZA DI S. PIETRO, ROME.

this case a double ramp encloses a small oval garden and ascends to the *porte cochère* of the church.

The immense courtyards in front of the palaces of Versailles and Caserta are examples of approaches planned upon a vast scale. The former [fig. 28] consists of three separate courts—the inner courtyard, or *Cour de Marbre*, enclosed by the wings of the palace; the outer courtyard, or *Cour Royale*; and the third fan-shape courtyard, or *Place d'Armes*, for great public reviews and displays. The effect of the approach is marred by the lowness of the palace buildings and the lack of an imposing central feature (compare Charlottenburg Palace, where a well-proportioned dome dominates the courtyard), and also because the *Place d'Armes* rises considerably and obscures the base of the buildings. At the palace of Caserta, near Naples, five broad roadways diverge upon an immense oval court, the two axes of which are 360 and 230 yards respectively; it is thus probably the largest oval courtyard in existence. The palace is set back, surrounding a second oblong court. A very favourite device in eighteenth-century palaces was to spread the approach place out in the form of an immense fan and surround it with dependencies, as at Nymphenburg, near Munich. A far more architectural and dignified form is that of the Schlossplatz at Coblentz [fig. 29], where the palace buildings surround three sides of an inner garden courtyard, the central axial line amounting to over 300 yards. Many of the French eighteenth-century *châteaux* have delightful forecourts that might well be imitated in modern town-planning schemes.

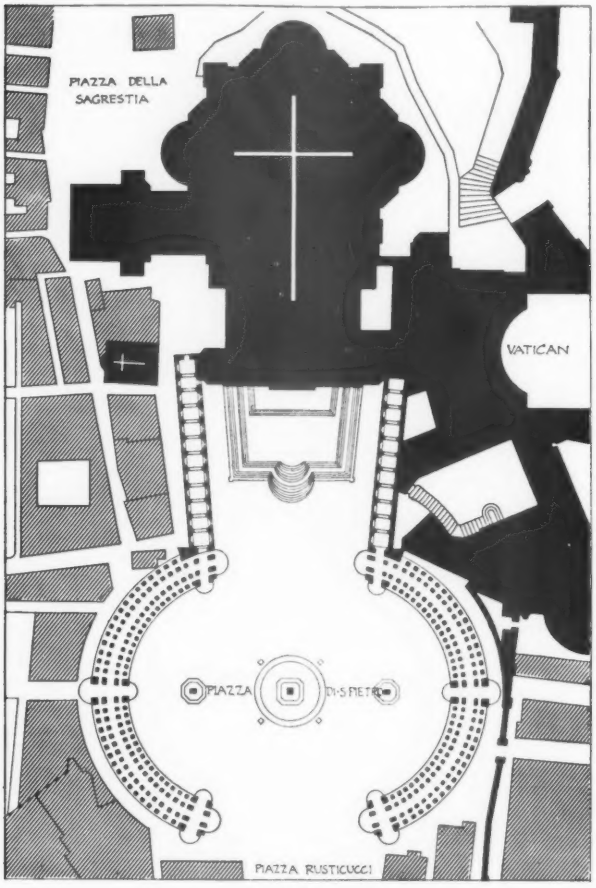


FIG. 28.

PLACES WHICH ARE PARTLY BUILT UPON.

In the last group are gathered those places which are partly built upon. These frequently occur in cities where triangular and irregular sites have been created by intersecting thoroughfares, and are suitable for the erection of such buildings as churches, museums, and picture galleries, whose character demands an important open site on account of their architectural importance and of the necessity of obtaining light on all sides. Extremes of narrowness and width are to be avoided; an exaggerated width leads to a feeling of emptiness which it is not

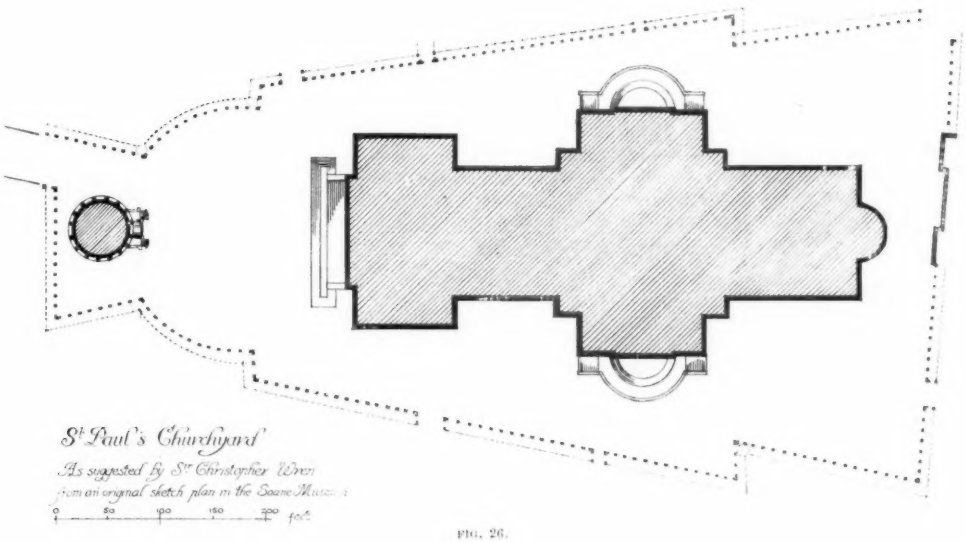

St Paul's Churchyard
As suggested by Sir Christopher Wren
from an original sketch plan in the Soane Museum
0 50 100 150 200 feet

FIG. 26.

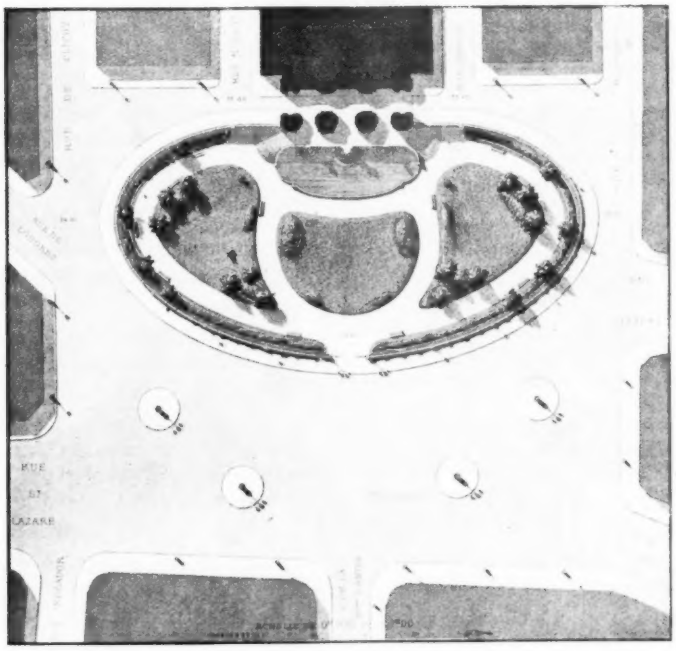


FIG. 27.—SQUARE DE LA TRINITÉ, PARIS.

easy to disguise by tree-planting and gardens. It is, of course, difficult for the designer of the place to estimate the probable height of the building to be erected, and the future might generally be left to the sensible treatment of others, if the authorities on their part would only insist on the importance of recognising the necessity of proportion between the width of the place and the height of the adjoining buildings. This class of place demands skilful treatment where it occurs in a position terminating a vista and forming the meeting-place of several traffic arteries. In this respect most of the best examples are to be found in Paris, where the importance of obtaining a series of imposing street vistas has been better realised than in any other city. In the smaller English towns we often find the market-hall placed in the middle of an open place, as at Abingdon and Peterborough, with a very pleasing effect. In larger examples the traffic requirements demand that the buildings shall be set well back from the traffic currents, and the many instances we find of the violation of this rule result in great disturbance to the traffic. The Place de l'Opéra and Place de la Madeleine, Paris, and the Gensdarmen Markt, Berlin, are good examples of ornamental places, though varying considerably in their character. The first is planned upon a lozenge-shaped site overlooking the Place de l'Opéra and terminating a superb vista from the Place du Théatre Français along the Avenue de l'Opéra, among the finest vistas in Europe. The entire scheme is perhaps the greatest result of Haussmann's remodelling, and architecturally one of the finest examples of town-planning in Europe, though from a traffic point of view it leaves much to be desired.

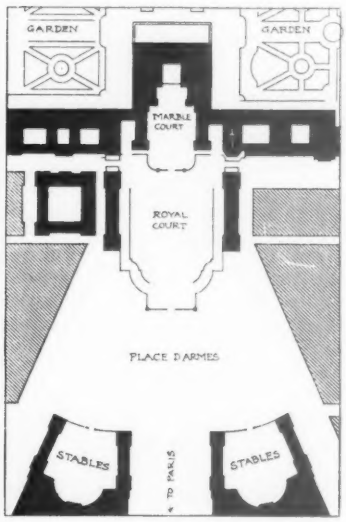


FIG. 28.—VERSAILLES.

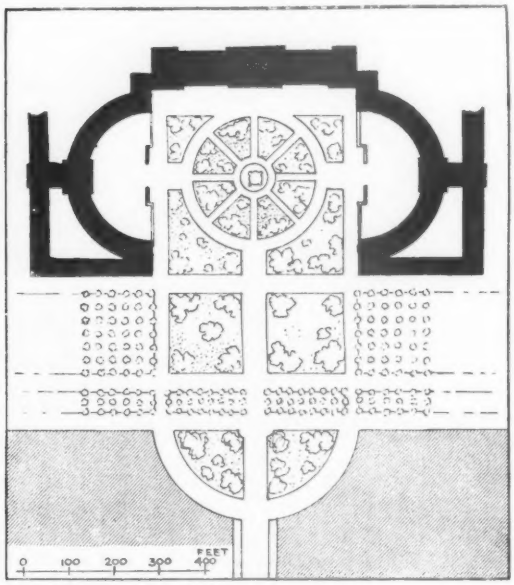


FIG. 29.—SCHLOSSPLATZ, COBLENTZ.

In conclusion I desire to express my sense of gratitude to this Institute for the honour they did me three years ago by conferring upon me the Godwin Bursary, by which means I was enabled to study the planning of public places in Paris, Berlin, Munich, and Vienna. Fine as these may be, we Londoners can proudly boast that London stands unrivalled amongst European cities —I think I might say amongst the cities of the world—in possessing the largest number of public open spaces, both in proportion to her acreage and also to the number of her citizens. For this fortunate state of affairs we owe a debt of gratitude, first of all, to those big landowners of the eighteenth century who endowed London with such a magnificent series of squares; and, secondly, to the splendid efforts of the County Council

and private societies who have interested themselves in the acquisition of every public space that has become available. It is a curious fact that, whereas London has enormously increased her open spaces, Paris during the last century has allowed them to decrease from 960 acres in 1789 to 330 acres in 1900. Now, having this splendid series of public open spaces, may we not justly reproach ourselves as architects with the poor use that has been made of them? I venture to think that such a superb site as that offered by Trafalgar Square, with its broad gentle slopes, would have been treated in a far grander way in either Paris, Berlin, or Vienna. How such a site, the centre of the metropolis, would have appealed to Haussmann! That we have failed, failed signally and lugubriously, to make the most of our public squares must, I fear, be admitted; but still let us hope that with a better educated public opinion we are on the eve of better times, and it behoves us members of this Institute in London to see that when the day comes that the squares of London fall into the hands of the public, as I feel convinced they eventually must, the borough councils will realise that it is not sufficient merely to open the gates, or remove the railings, but that whether these squares be replanned as traffic-distributing centres, as forecourts to great public buildings, as gardens, or for purely ornamental purposes, they are the most powerful factors that remain to us for the beautification of our great Metropolis.

DISCUSSION OF MR. TRIGGS'S PAPER.

Mr. Ernest George, *President*, in the Chair.

[Mr. Triggs unfortunately was prevented being present at the Meeting owing to an attack of bronchial catarrh, and at the request of the President his Paper was read by the Secretary. The illustrations, consisting of lantern slides provided by Mr. Triggs, were projected upon the screen at points in the Paper carefully indicated by the author, hence no further explanation was needed than that afforded by the Paper itself. Displayed on the walls were a numerous collection of drawings, prints, and photographs, for the most part the originals of the illustrations in Mr. Triggs's recently published book on Town Planning. The Institute is indebted to Mr. Batsford for kindly lending a series of rare and exceedingly fine engravings depicting some of the principal London squares as they appeared in the middle of the eighteenth century.]

Mr. H. V. Lanchester [*F.*] said it gave him great pleasure to move a vote of thanks to Mr. Triggs for his Paper, which displayed so much research on the question of these public places. Architects were greatly indebted to him for the breadth of his studies in this direction. As they knew, in the book he had recently published on town planning generally he had gone a great deal further into the matter. If Mr. Triggs had been present he should have liked to put one or two questions to him. Mr. Triggs, for instance, had referred to the axiom that more depends on the placing of important structures than on the structures themselves. That perhaps might be regarded as true under the system adopted in the formal school of civic design; but he believed the opposite was true when design was looked at from the point of view of the advocates of the informal system. He had read with great interest lately several articles on the informal method of civic design; it was scarcely fair perhaps to call it the informal method; it arose simply through the adoption of the natural lines of traffic and the obvious utilities of the primitive city. It sometimes occurred that the cities, which had originally been laid out instinctively, possessed a charm that was often lacking in those which had been laid out with the most studied art. The beauty of such cities seemed to depend on the design of the structure having been adapted and most artistically considered with regard to the accidents of its position. That, perhaps, would afford some clue to the reconciliation of the difference between the standpoints of the two schools. One school said "Let us have buildings adapted to the position; however curious and irregular the position may be, let us, as architects, study its irregularities, and out of these irregularities secure all the charm that can be obtained." The other school said "Let us study the position of our buildings, and, if the buildings are reasonably good, then they will tell of themselves." That was a distinction he should like to make between Mr. Triggs's axiom and the other axiom that seemed to him equally important. It was not quite clear to him what Mr. Triggs's intention was with regard to a semi-circular place at Hyde Park Corner; he should like to have seen some illustration of the proposal. With regard to the garage place outside the railway station, in England they were

rather inclined to adopt the system of a circulating arrangement for public vehicles like cabs, which circulated from one end of the station to the other, rather than accommodating them in a *place* outside the station. Of course the *place* was necessary for the traffic of trams and omnibuses; but we were working on a more or less slipshod basis with regard to the circulation of vehicles through our railway stations. That, however, was a matter for the railway companies rather than for public interference; a great deal might be done to make the circulation easy and flowing and natural. He was very interested in Mr. Triggs's division of the types of *place*, and he should like to add a few words to his definition of the forecourt *place*. The forecourt *place* was a thing that seemed difficult for the Northern mind to understand; but it had no doubt grown up from the feeling in the south that there should be some graduation in passing from the outside to the interior of a building. A building and its surroundings were not distinct things, as we were apt to feel in the North. All the important buildings of the classic period were surrounded and connected with *loggie* that broke the suddenness of passing from the bright sunlight into the comparatively gloomy interior. They managed that very skilfully by passing through first, perhaps, an open courtyard and then a loggia, and thus into the interior of the building, as might be seen in many of the temples and basilicas of Egypt, Greece, and Rome. The same idea was evident in the narthex of the early Christian churches, and from this one got (in Renaissance times) the forecourt or forecourt place. This feature is of the greatest importance in the South, and one cannot help feeling its architectural value, even in our more Northern climes, as a solution of the problem of transition between the open street and the interior of the building.

Mr. PAUL WATERHOUSE, M.A. Oxon. [*F.*], in seconding the vote of thanks, expressed his regret that Mr. Triggs was not present. However well a Paper might be read by another man—and it had been most ably read—it was much better to hear it delivered by the author and to have the little *obiter dicta* that were generally thrown in. The whole question of the planning of "places" was one which, so far as it had any practical bearing for architects—and sometimes it seemed as if it never could have any practical bearing for architects—must be intimately wrapped up with the general principles of town planning. When talking of the general principles of town planning we were sometimes in danger of forgetting that the so-called general principles were in reality very much divided into classes. It had to be remembered, to begin with, that the needs of large cities were very different from the needs of small provincial cities. In the small cities a single centre was a desirable and convenient and beautiful thing; but in large cities a single centre was an obvious impossibility, and altogether undesirable from the point of view of either utility or beauty. Then there was the other division of the subject—namely, that part of the efforts of the town planner were necessarily directed to the remodelling of old cities, and the rest of his energies would be devoted to planning new cities, if he got the chance. It might be said that the entire new planning of a large city was an impossible thing; but he should like to insist that the entire planning of a large city was really within the range of practical energy—or rather that it was borne in upon us as a matter of practical importance, for this reason, that if any man had the luck to be given the chance of remodelling a large city such as London, the only way in which he could do it would be by setting before himself on the one hand the existing state of things and the present needs of the city, and on the other his ideal vision of what he would do with such a city on such a site. He would hold before him the needs of the present and the ideal possibilities of the new city on the same site, and he would do his best to blend the two together. A capable and distinguished architect, he supposed, could have no more horrible nightmare than to dream that he was approached by some great power in the British Empire—the Chancellor of the Exchequer or the House of Lords, or whatever power happened to be supreme at the time—with an offer of a salary, say, of some thousands a year, an office rent-free, and as large a staff as he pleased, and that he was to redesign without restriction the capital of the Empire. He might be told, for example, that he need not consider the existing London—he might put it where he pleased; he might have a site level or mountainous as he preferred, with or without a river just as he wished, and he might either take the existing London away and rebuild on the same site or build it anywhere else within the British Empire. Such a problem, from the very withdrawal of restriction, would be so great a burden that the consolation of those thousands per annum would go no way to relieve it. Fortunately all these problems had to be attacked through obstacles. The town planner, like the house planner, had the joy of achieving his results not through limitless opportunities, but by a battle with hindrances. But unhappily we were scarcely ever given the chance of meeting the hindrances and obstacles. There was our grievance—the real root of our unhappiness over the town planning question was that we did not see how the remodelling even of our own London was to come within the range of practical politics. Before sitting down he should like to renew an old suggestion—that the Traffic Commission of which we once heard so much and of which we now heard nothing, whose many volumes had been read he concluded by very few people and were unknown to a great many, should be allowed to bear fruit. That Commission had done an enormous work in bringing together the data and the very foundations of the difficulty of the

traffic problem in London. Within those volumes would be found the whole of the traffic problem of London systematised, analysed, divided, and set out in such a way as to show where the shoe pinched in every part of London. That Traffic Commission concluded its labours in a practical way, so far as being practical on paper was concerned, by showing that streets might be made through our existing dear old London in such a way that one could get from place to place with much greater ease than at present. In his opinion all that was needed, in addition to that scheme, was that it should be nurtured architecturally—doctored architecturally. It might be remembered that the Institute had once given him the opportunity of showing one out of many possible ways by which the lines of routes there suggested could be harmonised and brought into convenient alignment with some of the existing buildings of London.* He wanted once more to express a hope in public that something might result from the Traffic Commission's Report, and that a day might come when some architect, or body of architects, would be engaged to help the formation of new streets from their inception—that is to say, that schemes for remodelling the streets in London should be hatched out from the beginning with the assistance of architects and carried through with architectural assistance. Mr. Triggs had alluded to gyratory regulation or regulated gyration. One great solution of the traffic difficulty at complicated crossings was, he believed, to be found in regulated gyration; that is, say, that vehicles coming to a point where several roads met, instead of darting across the open space to the road they wanted to take on the opposite side, which created confusion, should be compelled always to turn to the left, and go on until they came to the turning they wanted to go out from. Many of them, he supposed, thought they had invented this system—he was glad to see the author's name given at last. There were, however, two great difficulties in it: one was that the driver would be obliged to keep very close to the near side, otherwise he would be cut off, by vehicles inside him, from taking the turn he wanted and he might have to go on past his turning. On the other hand the foot-passenger would not be able to get across at all; therefore, it must be accompanied by subways, and he should greatly like to see a "regulated gyration" crossing tried somewhere in London. He should also like to see what he believed to be the best solution of the direct crossing difficulty tried again, though it had been tried already in London—he meant the viaduct system. There were one or two places in London still remaining where a great deal of time was lost by the traffic being held up, and where he felt quite sure the over-and-under principle could be applied with the greatest possible success. That principle again would have to be safeguarded by devising some means of bypass to get the traffic from the low level to the high level.

MR. HEATHCOTE STATHAM [*F.*] said that reference had been made to towns in which the street lines had been taken from natural lines. What were natural lines? He should like to know what that meant? How did it come about that the High Street of Oxford had that sweeping curve, as Wordsworth said, "The streamlike windings of that glorious street"? He supposed there was some little irregularity in the demarcation of the property at the outset, and he should presume really that that was what had given rise to what was called the "natural" planning of streets in old mediæval towns—that they originally began as lanes past somebody's fields, and the fields were of irregular shape. But he did not see in considering the question of planning a modern town what they had to do with natural planning. A town was an artificial thing; they had to think of it so, and to treat it as such. He had noticed that in all recent plans of modern cities, or for improving modern cities, there seemed a tendency towards the adoption of oblique lines and radiating lines of streets, or a combination of what might be called the gridiron plan with the radiating line. There was a great deal to be said for the radiating principle of streets in regard to vista and effect, and also in shortening the distance from place to place; but, on the other hand, from the point of view of the buildings, it left a great many very awkward plots—awkward to plan and awkward to treat architecturally. In Paris—though it was a city he was very fond of—the radiating plan, he thought, had been carried rather too far—one got tired of it. There was also an objection to a stranger that a city that had radiating lines, unless one knew the city very well, became very puzzling; if he forgot exactly where he started, he had no right angles to guide him, and he began to forget where he was going. On the other hand, it must be admitted that the gridiron plan, while it afforded very good building plots, was a plan that obliged one to go round two sides of a square or a parallelogram if one wanted to get from one side to the other. So that there were difficulties on both sides that required to be remembered. With regard to the question of forecourts, was not the great reason of forecourts really that of architectural effect? To make a building worth looking at, a sort of preface, as it were that put to it; it was put back from the road so, was there was space to admire it, and greater importance was given to it. Also in the case of railway stations and places of that kind, into and out of which there was a very large stream of traffic constantly going, the forecourt was a most important provision in point of convenience, because it prevented a stream of cabs

* "Some Observations on the Report of the Royal Commission on London Traffic, with special reference to the Proposed Formation of New Thoroughfares," by Paul Waterhouse [JOURNAL, 26th May and 16th June, 1906].

being turned straight into the street line of traffic; they were given a little time and space in which to arrange themselves and to see their best way out. In London it seemed to him that the great mistakes that had been made at several points had been from the exclusive consideration of streets without consideration of the points between them. That was the fatal mistake in what he considered one of the greatest blunders of modern times, the treatment of Hyde Park Corner. In the first place, in his opinion that Constitution Hill Arch ought never to have been moved. It formed a parallel line with Apsley House before. It had been taken away and placed at an angle where it faced nothing and looked up to nothing; the streets were laid out by the surveyor (or whoever laid them out) in the most inconvenient route for traffic, and the spaces between them were a sort of shoulder-of-mutton triangles with no *raison d'être*. The minute he saw them, he said "That's not an architect's plan; that's an estate agent's plan." There was the same blunder in the fatal attempt that had been made to do something with the Marble Arch. Mr. Speaight's original design, although it left no use for the Marble Arch, really had a certain dignity. He showed a semi-circular route right round it. But then it was supposed that it was not the best route for traffic; so now we had the best route for traffic, which had no relation to the Arch whatever, which came in a sort of accidental line behind it, and the Arch was left standing central to nothing, not only with no use in itself, but without the appearance of architectural use. And in the case of a triumphal arch like that, he had sometimes thought, in regard to the Place de l'Étoile, was it quite the correct thing to put up an immense arch which suggested the idea of a gateway, and to use it solely as a thing to drive round? It always seemed to him that in the Place de l'Étoile the traffic ought to be going through that arch instead of driving round it. With regard to the irregularity of these *places*, we find a *place* or a market-place in an old town which had irregularity of line and looked very well, but he did not think that was an excuse for deliberately doing it. In planning a square in a great town he was quite in favour of symmetry. He did not quite believe that the eye did not see when the two sides were not parallel. He should prefer to see them symmetrically treated. The only other point that he heard with a little dread and terror was the suggestion that we should some day see Hyde Park taken up by aviation. He was afraid that would be an end to the amenities of Hyde Park. He wished to join very heartily in appreciation of the interesting and valuable paper they had heard, and not only to join in the vote of thanks to Mr. Triggs for having written it, but they owed also, he thought, a supplementary vote of thanks to the Secretary for reading it.

MR. FRANCIS HOOPER [*F.*] said he should like to be allowed to follow Mr. Statham, the respected successor of the donor of the Bursary, to whom, indirectly, they owed the paper that had interested them so much. He himself had had the privilege of holding the Godwin Bursary, and could appreciate the generosity of its founder. He was particularly interested that evening to find that the city to which he had devoted his interest, Paris, had been so prominently laid before them. He desired to express a hope that one of the plans shown upon the screen, that of the Piazza of St. Mark in Venice, might be amongst those to be illustrated in the JOURNAL. Mr. Statham had alluded to the frequent difficulty of building sites which resulted from a regular form, such as a circus. The difficulty in planning any new arrangement of streets and schemes on an absolutely rectangular principle was that they resulted in an old city in a great many irregular sites, and this plan, to which he alluded, of the Piazza of St. Mark in Venice showed that a most dignified effect could be obtained without rectangular enclosures. Also it was interesting to see that the courtyard of the Doge's palace, which delighted every visitor, was not enclosed by rectangular lines. If this matter could be always borne in mind by those in authority, or by those who were studying any street improvement, he believed many difficulties might be overcome. Their memories carried them back to the time when Mr. Westgarth offered a prize to the Society of Arts for a scheme for remodelling London, and their friend Mr. Woodward was amongst the successful competitors. Unfortunately the death of Mr. Westgarth put an end to the career of one who was deeply in earnest with regard to the study and development of London improvement. How much they lost they could hardly tell, for he had made up his mind obviously to educate the public and at the same time to educate architects by inviting them to give their attention to the problem of street improvement. The subject was also brought prominently not only before architects, but before the authorities of London, in the valuable paper by Mr. Paul Waterhouse. He felt that every time the subject was brought before the Institute they were doing something not only to educate the public, but primarily to educate themselves in the intricate problems of street alignment and the improvement of the facilities for traffic.

MR. WM. WOODWARD [*F.*] said he was much obliged to Mr. Hooper for informing the Institute that he was the fortunate recipient of the liberality of Mr. William Westgarth. He would endorse all Mr. Hooper had said, for had Mr. Westgarth lived it was his intention, as he had heard time after time from his own lips, to devote a very large sum of money indeed to the furtherance of the beautification of London. He desired to add his meed of praise for the paper they had listened to. He quite expected, however, that in a paper on

town planning and on the disposition of streets in cities reference would be made to the last efforts in London to give us what we were entitled to receive. Reference had been made by Mr. Statham to the Marble Arch improvement. He (Mr. Woodward) had ventured in the public press, and ventured now in the presence of the author, Mr. Speaight, to whom they owed very many thanks for all that he had done, to say that the result of the Marble Arch improvement had been very unfortunate. He had been very glad to hear from Mr. Statham that Mr. Speaight's original design, had it not been tampered with, would have given them a much better result than was now before them. He had suggested to Mr. Speaight, and in the public press, that the Arch, being isolated and having no *raison d'être* whatever, could be made of some service if it were shifted back to the piers to which the large gates were hung, and form an entrance to the existing fine avenue. With regard to the greatest improvement London had had the opportunity of witnessing—viz. the memorial to Queen Victoria—here, in Pall Mall, was a magnificent avenue terminated, as probably it would be, by an equally magnificent monument to the Queen. The entrance to Charing Cross as now finished could be seen. He understood that the Government had determined that no more houses should be pulled down than they now saw to open up that grand curve of Sir Aston Webb's so that they might see from the Strand the beauty of the design. Even were those houses pulled down that improvement could not be considered complete unless Drummond's Bank were also pulled down and Whitehall widened at that end, as had so often been insisted upon by the Institute. A great blunder had been committed by placing heavy masonry over the three arches, not only spoiling the effect—and particularly so from the park—of the improvement, but depriving London of the opportunity from Charing Cross and its surroundings of looking through a fine vista right to the monument of Queen Victoria. It was a matter of everlasting regret. He did not think it was due to Sir Aston Webb entirely that that had been done, but, whether or not, that to his mind was another lost opportunity for public improvement in London. They were looking forward with great interest to Mr. Norman Shaw's design for Piccadilly Circus. What they knew of Mr. Norman Shaw would convince them that they would have something very fine with regard to that Circus. Mr. Shaw had given them—or would give them when the Quadrant was completed—an improvement even on Nash's Quadrant; that is to say, instead of leaving Air Street open and severing parts of the Quadrant, he would continue his architecture right round the Quadrant, and give to the whole a very fine architectural effect. With regard to the height of buildings as compared with the width of thoroughfares, it was well to bear in mind the width of two thoroughfares —Northumberland Avenue, which was 90 feet in width from building to building, and Portland Place, which was 120 feet in width from building to building. These two thoroughfares gave a very good idea of the effect of the height of buildings on the width of streets.

THE PRESIDENT said it was only fair to Sir Aston Webb to say that he had very ably treated the avenue referred to. His building was cleverly planned to cover the unsightly cant of the road that occurred at that point. If he had carried the avenue through, he would only have looked on the halves of two houses in Parliament Street; it would not have afforded a vista. That was why Sir Aston had blinded that end and had put his three radiating arches there. He quite agreed with Mr. Woodward's other remarks.

MR. F. W. SPEAIGHT said he was sure that those who were not members of this distinguished institution must have listened with delight to the most interesting Paper that they had just heard read. Mr. Triggs's book *Formal Gardens in England and Scotland* was the first of the few books he had purchased on architecture, and there was no book he looked at more frequently, and, through doing so, any elementary knowledge he had obtained on architectural planning and the balance of design he owed in the first place to its author. Looking round the room he could not help wondering how many gentlemen were present who ought to have really listened to this Paper; because he presumed most of those present were members of the architectural profession who entirely agreed with everything that had been said and everything that had been displayed. He would rather have seen the room full of members of Improvement Committees and members of Parliament, especially those who refused to grant money for public improvements; and he should have liked especially to have seen a few First Commissioners of Works. He hoped, however, that some means might be found for circulating this Paper among those who would benefit by reading it. One impression he had gained in looking at the beautiful views put before them was how peaceful those *places* were, and how different they would appear if they were in London; for it seemed to him that the few public places they had were entirely spoilt by the fidgeting and annoying things that were allowed to appear in them. Other societies were in existence for the prevention of cruelty and nuisance. He should very much like to see a Society for the Prevention of Cruelty to Public Places and Public Buildings. It was impossible to look anywhere without seeing the most awful eyesores; and it was frequently left to a private individual—and he was afraid very often, much to his objection, to himself—to protest in the public press against these eyesores. The question of Sir Aston Webb's monumental work at the Mall had been referred

to, and Mr. Woodward had criticised the design of the arch. Mr. Woodward, he was afraid, must hold shares in Bovril, because if that arch was taken away the principal thing that would be seen, as they came from the Mall, would be "Bovril" flashing in that dreadful electric-light advertisement in front of the building that faced the arch. Here was an improvement he supposed that had cost in round figures a million, more or less, and the chief thing seen as one came through the centre arch was that dreadful word "Bovril." There was no other city in the world that would allow such a thing as this. Again, at the Royal Exchange, in the centre of the City, there were a couple of tubs belonging to some Public Gardens Association. These two leaky tubs with half-dead plants spoiled the whole effect of the façade of the Royal Exchange. It was a small matter, but to anybody with an artist's eye, or an eye that, like his, wished to be artistic, it was most annoying; and instead of the tubs being an advertisement for the Public Gardens Association they were just the reverse. Trafalgar Square a little while ago had a Tube entrance erected there. One morning he was passing and he saw a huge electric light notice put above it showing plans of "How to get about London." Why should it have been left, as it was in that case, to a private individual to write to the *Times* to protest against it and to draw attention to the fact that when permission was given to form an entrance there a special clause in the Act forbade any advertisement to appear above the railings? Take, again, Parliament Square that used to be disfigured with a number of untidy flower beds containing half-perished red geraniums. It was Canon Henson, he believed, who wrote to the papers saying that it was the vapours of the motor omnibuses that caused the geraniums to wither, and that the vapour was having also an injurious effect upon the Abbey. He read this astonishing statement coming up from the country one morning, and immediately he jumped into a cab and drove to one of the gardeners on the spot and asked about it. He found, however, that the fading of the flowers was due to the vapours from the wood paving. Again it was left to a private citizen to write to the papers protesting against the untidy condition of Parliament Square. Everyone would rejoice to see how immensely that had been remedied by the bays which had now been planted round it. At the cost of a few pounds and a little thought from the First Commissioner of Works the whole effect had been improved. What other city in the world would allow those two most awkward lamps at either side of the steps in front of St. Paul's Cathedral? They look like two storks roosting. He should like, in conclusion, to thank the members of the architectural profession, and also the gentlemen who were associated with the architectural press, for the most—he could only term it—brotherly support they had extended on many occasions to an outsider who attempted to take an interest in the work in which they were professionally engaged. There was sometimes a feeling that the outsider was looked upon as an intruder, but he must say that he had received most kindly support and encouragement from many architects, and he hoped this encouragement which had been so generously extended to himself would encourage other private citizens in taking an interest in public improvements.

MR. RAYMOND UNWIN said he wished to add his thanks to Mr. Triggs not only for what he had given them in his admirable and comprehensive Paper, but also for the many useful examples of *places* and examples of town planning from different cities on the Continent to be found in his book. He was pleased to see in Mr. Triggs's Paper—what he would like to amplify a little—viz., the view that it was important to take centres for towns. He was rather inclined to dissent from the seconder, Mr. Waterhouse, who thought it was not possible to have a centre to a very big city. It was not possible, he thought, to collect everything into one centre in a big city, but it was possible to have a centre in scale with the city and supplementary centres as well; if they were to give a sense of scale to their plans of towns it was largely by the use of *places* and centres, which would often be formed not only of individual *places* but of groups of *places*, which were, he thought, among the most charming features of many Continental towns. At Nancy, for instance, they would not find one *place*, but a group of *places* leading from one to another. At Salzburg and in many other towns they had the charm of passing out of one *place* into another, and then even into a group of *places*. In that way, without necessarily attempting an enormous *place* in scale with a town like London, they might have quite definitely centres composed of a group of *places* which would be large enough to stand out as it were in scale. This importance of scale between the different parts in making the whole into an interesting design was one which should be borne in mind not only in planning the centre of a town but in the planning of suburbs. If we made more use of the *place* and centre in planning our suburbs, even using some central feature for such small areas as building estates, we should get much more interest into our designs and more sense of scale between the different parts. We should find there probably much more scope for actual work than in large monumental places, for which, as had been repeatedly mentioned, opportunities in England occurred only occasionally. Mr. Triggs mentioned one or two *places*, particularly the Place de la République in Paris, as good examples of the treatment of multiple junctions as being better than a round *place*. He did not think the reasoning very convincing. If there was any virtue in a round *place* it arose from the fact that all the traffic was kept moving in one direction,

whereas, as shown in the illustration of an open place as suggested by Mr. Triggs, it must either be cut in the middle and the gyration be upset, or, as in the Place de la République, a very serious détour must be made by traffic from the sides. A good deal could be said, if there was to be a gyratory place, for having one of a round character. Mr. Triggs's statement that the gyratory *place* was only useful when it was of immense size needed to be reconsidered, perhaps, unless there was an immense volume of traffic: a comparatively small area was sufficient for any ordinary traffic to give room for it to pass round and pass off in different directions. It was probably true, as had been often pointed out, that it was difficult to get a really satisfactory architectural effect in such places, but none the less he thought from the point of view of traffic, about which they perhaps took too much account, it was useful, and he was not sure that the round form was not the best for that particular system. With regard to railway stations, he thought the station at Hanover which was shown had the great disadvantage that as soon as a passenger stepped out of the station he was in the traffic and liable to be run over from one direction or the other. That was a very great disadvantage, and he was glad to see that it was avoided in Mr. Triggs's design for a station. People coming out of a bustling station wanted a little breathing space to find out in which direction they wanted to go before having to step on to a busy road with streams of trams rushing about. The Karlsplatz at Munich, of which Mr. Triggs showed a picture, afforded a good example of the proper place for cabs to stand. In the case of garden *places*, some of those shown seemed rather frittered away in pattern work which was lacking in breadth. One thing that struck him in seeing the garden *places* on the Continent was that those were most successful which were most broadly and simply treated. The garden *place* of the Palais Royal in Paris, for instance, was nicely and squarely treated, whereas in many places the whole space seemed to be frittered away by the geometrical patterns. What was really wanted was to give a breadth of foreground to buildings. Mr. Triggs divided *places* and classified them in various ways into business and ornamental *places*, but that classification might be somewhat further amplified. In England we had public meetings and demonstrations, and some *places* might serve for that purpose, and others might very suitably be rest *places*, quiet *places*, where broad expanses of grass and foliage would be useful.

MR. TRIGGS, to whom an advance proof of the foregoing report had been sent, replies:—

Among the points referred to in the discussion was the improvement to Hyde Park Corner made by the Metropolitan Board of Works in 1883. In venturing to suggest that an architectural place would have been an ideal treatment for such a position, I had in my mind a semicircular place 450 feet across, with Hyde Park arch as a centre, flanked by Apsley House and a similar building on the other side. This would involve the rebuilding of St. George's Hospital (a contingency that has been mooted more than once), the placing of the Wellington arch on the circumference of the semicircle, and perhaps the construction of a similar arch leading to Grosvenor Crescent. Grosvenor Place could have been arranged to enter exactly opposite the Hyde Park arch. Such an arrangement would have prevented the confusion of traffic lines at the junction of Hamilton Place with Piccadilly. Magnificent building sites would have been created on the east and north sides of the place. The value of these would have gone far towards the compensating of St. George's Hospital, and Hyde Park Corner would have rivalled the superb Pariser Platz at the end of Unter den Linden. It is instructive to read in the "History of London Street Improvements," by Mr. P. J. Edwards, how much more eager the authorities appear to have been to apportion the payments to be made by the different Boards than to give London a dignified entrance to Hyde Park.

As Mr. Waterhouse points out, it has to be remembered that the needs of large cities are very different from those of small provincial cities. The mistake that we have so often made in this country is that we have failed to realise how quickly a small town can grow into a large city. I, too, am inclined to dissent from Mr. Waterhouse, and fail to see why in large cities a civic centre is undesirable. Such a centre might have been created at South Kensington with great advantage to that series of magnificent buildings. Cardiff, with its Law Courts, City Hall, Museum, and University, has led the way among provincial cities in planning a fine civic group; and in the United States the creation of large civic centres has been a marked feature of several fine city plans in recent years.

I made no allusion in my Paper to the grouping of places because I feel that this part of the subject had been fully dealt with by Mr. Simpson, but I realise with Mr. Unwin that such groups are among the most charming features of many Continental towns. As to the shape of traffic places, the oval and elongated forms, though perhaps not so striking on paper, seem to me to be more effective in distributing traffic. It is difficult to form a comparison in London, but in Paris I think that anyone who will spend an hour at the Place de l'Etoile on a busy Sunday afternoon will find that as regards facility of movement it compares badly with the Place de la République.

My thanks are due to Mr. Batsford for the loan of many interesting engravings of London Squares, and to Dr. Brinckmann for the plans of two forecourt places in Rome.

TOWN PLANNING.

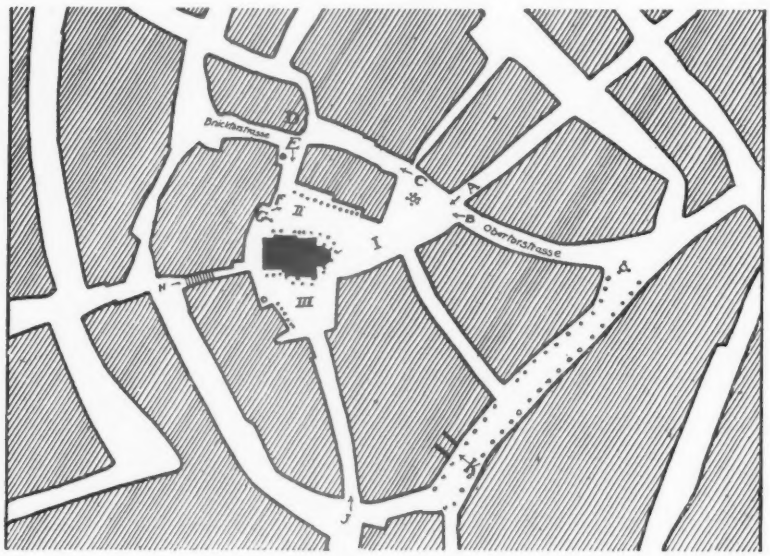
PAPERS COLLECTED BY THE R.I.B.A. TOWN PLANNING COMMITTEE.

V.—BUTTSTEDT.*

Communicated by RAYMOND UNWIN.

Provincial towns of medium size, boasting some traditional merit and characterised by some regular architectural development generally, make the same impression on the minds of all strangers visiting them for the first time. Surrounding an otherwise good lay-out, one finds an untidy area marking the growth of the last decades. He who has visited many such towns will invariably note this characteristic. But, after passing through the outer zone of nineteenth-century ugliness, the beauty of the old city is still to be seen. A fine example of this is the little town of Buttstedt, in Sachsen-Weimar, with a few thousand inhabitants, whose only claim to importance nowadays lies in its small cattle market, once so prosperous, and which brought fame to the then fortified town.

Of this bygone though modest splendour there yet remain many a burgher's house, the town-hall, and notably the church. Walking from the railway station to the town, one must needs pass along a straight and inexpressibly dreary street, which certainly gives rise to any but pleasant anticipations, running aimlessly through the town and entering the market-place at A, on the plan, with no consideration whatever for perspective. The market-place, though lacking any prominent feature, is perfect in its general effect. Standing in the square formed on the left side by a row of simple dwelling-houses, on the right side by the long-stretching front of the town-hall with the fountain before it, one sees the choir of St. Michael's Church, which blends with beautiful effect, its romantic but majestic tower giving a sense of vertical development (Illus. A).



PLAN OF BUTTSTEDT.

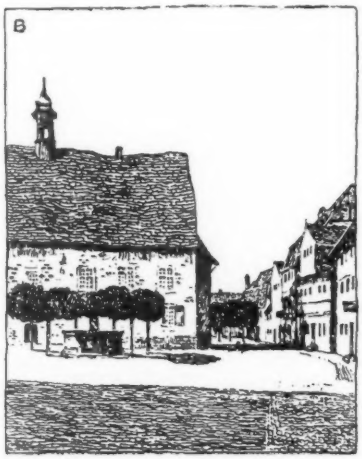
The joy of studying town plans is one which never grows old to those interested in the art of designing towns and cities. One feels more and more how well the builders of former times were able to unite utility and beauty without giving undue preference to either. The task is so simple, and yet, as it seems after the experiences of later times, so difficult to accomplish. We are apt to forget that the natural circumstances must be taken as fundamental, and to overlook nature's demands, fulfilling them in an unnatural way or ruthlessly neglecting them.

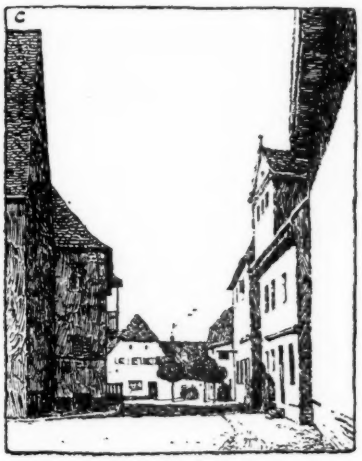
Looking at the present plan of Buttstedt, one is pleasantly surprised by the beauty of its lines and general lay-out. The whole is undoubtedly the product of thoughtful consideration. The graceful lines of the streets lead in seemingly unintentional yet well-calculated curves from the outer zone to the market-place. Nowhere, except in the "New Street"—leading outward from A on plan—does one find any severity or unnatural constraint. In this we see the difference between the old town plans and the lay-out of a time which is not yet quite over, which has failed, not having fully grasped the meaning of the principle of "practical utility." So many valuable ideals have been destroyed by the

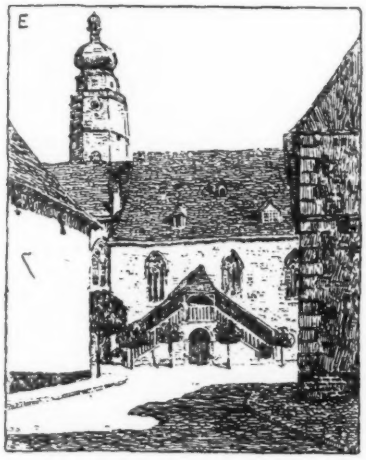
* A translation of the article "Buttstedt: eine Städtebauliche Studie von Richard Woernle und Robert Schwerdtfeger," from the December number 1908 of *Der Städtebau*, in which number further illustrations of this town not reproduced herewith will be found.

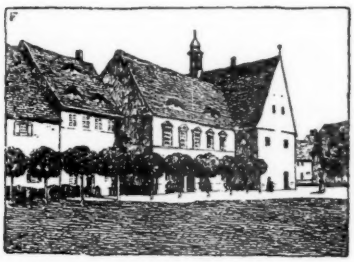
too generous or thoughtless use of straight lines to facilitate traffic.

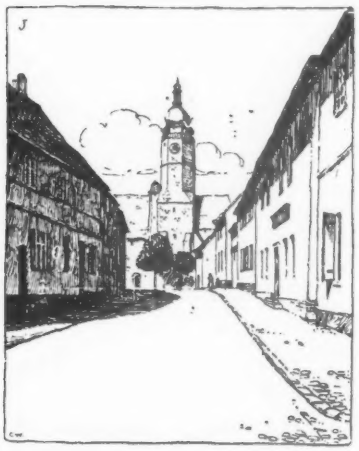
To understand the lines of the plan it is of course necessary to know the nature of the site, and one can scarcely misunderstand the meaning of the different curves of the streets. Buttstedt is built on a flat hill, which falls off rather steeply in a semicircle on the west side, while on the other sides it slopes gently down towards the surrounding plain. At the top of the hill stands the market-place with

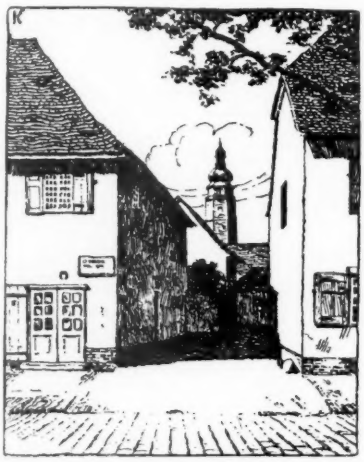












the town-hall and the church, which always keeps its dominant position, and the beautiful effect of which is not spoiled by any false balance in the grouping. The fundamental law of all architectural grouping of buildings, too often forgotten in later times, was formerly very strictly adhered to. Side by side with an evenness and balance in the distribution of the buildings, streets, and squares, there is a gradual development towards the centre to which everything spontaneously subordinates itself.

In Buttstedt, St. Michael's Church forms such a centre. It is a very beautiful building, and its characteristic tower is one of the best in Thuringen. It dates from the beginning of the 16th century, and is probably of Gothic origin. (For details of the church and town-hall see Lehfeld's "Bau- und Kunstdenkmäler Thüringens.") It is marvellously well situated in the centre of the market-place, and yet its characteristic beauty does not overshadow the less striking town-hall, and closes the different street views in a very pleasant manner. Its western front is built on the very edge of the steep hill, from the foot of which its appearance makes a magnificent impression.

By means of the church and the town-hall the triangular market-place is divided into three squares, which are well proportioned in regard to the groups of buildings surrounding them.

Square I., with the church on the west side, forms a deep *place* in the sense of Camillo Sitte.

Square II., in relation to the town-hall and the north side of the church nave, forms a broad *place*.

Square III. is also a broad *place* very cleverly made by a cut in the group of buildings to the south.

If we take the town-hall into consideration we can also call Square I. a broad *place*, and in this respect it is especially well planned; the quite simple, broad, eastern front of the town-hall, with a charming fountain surrounded by acacia trees, is most pleasing. By this division of the very large market-place into three squares the traffic is divided successfully, and at the same time the *place* presents a beautifully closed appearance. Nowhere, except where the New Street opens into the market-place, can you see any hole or gap in the sides of the square, although a great number of streets lead into it.

Buttstedt is an excellent example of Camillo Sitte's theory that broad *places* are only good when they are enclosed and dominated by buildings of the proper heights.

A good view of the town-hall and the fountain is obtained from the point B, and looking past the town-hall we see the continuation of the Obertorstrasse (Illus. C), ending in the corner house of the Brücktorstrasse, marked D on plan. We notice here how the Brücktorstrasse has been shifted from the line of the Obertorstrasse by a quite simple but cunningly arranged device. From another point we see the fountain surrounded by fairly young acacia trees, which must have been recently planted.

In Squares II. and III. the line of the trees follows that of the buildings, and encloses them in a green frame without really hiding them—this kind of acacia tree does not grow large (Illus. F and G). From another standpoint one sees the beautiful side of the town-hall, with a row of trees forming an excellent continuation of the western gable of the building. Again, at the projecting corner of the Brücktorstrasse one sees the tower rising above the long roof of the church (Illus. E). From other standpoints one gets a view, down the continuation of the Obertorstrasse, of one of the finest private houses of the town, of the convex curve of this street formed by the side of the town-hall, and also of a fine bow window on this building. Passing along the Brücktorstrasse we come to the Klefer Platz, where once again one catches a glimpse of the church tower between the houses.

The Brauhausstrasse—(from H–J on plan)—follows mainly the line of the old town-wall, which

still exists in part. From this street and its continuation the Topfmarkt (K on plan), the streets lead to the market-place, and at the end of each one sees either the church or the town-hall, and between the houses there are some more openings left, through which one sees each time a new and beautiful view of the church. From yet other points one sees the same building from the Kirchstrasse and from the Topfmarkt (Illus. J and K), and the town-hall is visible from another. We notice the noble lines of the Marktstrasse with the barn without windows, also the Obertorstrasse with its view of the town-ball and fountain in front; the Obertorstrasse looking from the town-hall showing the graceful curve of the street, the group of very old houses on the Topfmarkt closing the street perspective, the view from the little Sammelgasse of the town-hall with the church tower appearing above it, and the old gate forming a pleasant ending to the street. Even better than by examining the plan, the clear, natural, and unpretentious beauty of the town can be appreciated by looking down from the church tower over the roofs of the houses.

The cemetery is outside the present plan; in former times it adjoined a small chapel, which has now disappeared. The cemetery is not now in use, and is deserted. Its plan is very pleasing, showing sympathetic treatment, particularly of the arcade on the inside, right and left of the entrance. Many of the tombstones were designed by native artisans.

The details of houses and stucco-work in the rooms are signs of a culture which has fallen asleep and has not yet been re-awakened. When shall our work, which has already achieved some measure of success, bring life to these little places again?

It will happen, because we are going gradually forward. But when?

VI.—THE MASSACHUSETTS METROPOLITAN IMPROVEMENTS COMMISSION.

The Institute has received the Report of the Massachusetts Metropolitan Improvements Commission (Boston). The members of this Commission were Messrs. Benjamin N. Johnson, *Chairman*, Henry B. Day, Desmond Fitzgerald, Thomas J. Gargan (since deceased), Robert S. Peabody, and Sylvester Baxter, *Secretary*.

The R.I.B.A. Town Planning Committee will deal with this most valuable report in a future issue of the JOURNAL; meanwhile it is considered desirable to reprint the Act of Legislature appointing the Commission, together with some extracts from the introduction to the Report, as being of special and immediate interest at the present moment.

ACT OF LEGISLATURE.

"RESOLVED,—That the Governor, by and with the advice and consent of the Council, shall appoint three persons, and the Mayor of the City of Boston shall appoint two persons, who shall together constitute a Commission of five for the purposes hereinafter named. The Chairman of said Commission shall be designated by the Governor. The said appointees shall serve without compensation, and shall be persons of recognised qualifications and large experience in respect to one or more of the following subjects or professions, namely: finance, commerce, industry, transportation, real estate, architecture, engineering, civic administration, and law. Said Commission shall investigate and report as to the advisability of any public works in the metropolitan district which in its opinion will tend to the convenience of the people, the development of local business, the beautifying of the district, or the improvement of the same as a place of residence. It shall consider the establishment of a systematic method of internal communication by highways, the control or direction of traffic and transportation, and the location of such docks and terminals as the interests of the district may demand. It shall recommend the method of executing and paying for such improvements as it may suggest, and shall make such maps, plans, and estimates of cost as may be needed for its investigation, for the proper presentation of its conclusions, and may employ such assistants therefor as it may deem necessary. The Commission may expend such sums of money, not exceeding twenty-five thousand dollars, for clerical, expert, and other assistance, and for other incidental expenses, as it deems necessary. The Commission shall make its final Report to the Governor and to the Mayor of Boston on or before the first day of December, nineteen hundred and eight, and its powers and duties shall then terminate. The Governor shall transmit the report to the General Court of the year nineteen hundred and nine. The expenses incurred under the provision of this Act shall be assessed upon the metropolitan parks district.

"Approved 15th June 1907."

EXTRACTS FROM THE INTRODUCTION TO THE REPORT OF THE COMMISSION.

"Soon after its appointment the Commission selected Mr. Sylvester Baxter as its Secretary, and proceeded to give very general notice of its organisation and readiness to receive information or suggestions from any citizen who could assist the Commission in arriving at sound conclusions. Written information and requests to that effect were especially sent to the mayors of cities and the select men of towns, as well as to all known boards of trade, improvement societies, and other similar associations within the metropolitan district. Several hundred written requests for suggestions and assistance were likewise sent to those citizens of the Commonwealth who were known to have made a study of or to have shown interest in any of the lines of inquiry entrusted to the Commission. All these notices and requests were accompanied by a printed copy of the resolve establishing the Commission, thus disclosing fully the nature and scope of the subjects to be considered.

"Since its appointment the Commission has held regular meetings, usually twice in every week. It also gave several public hearings, which were widely advertised and afforded every citizen an opportunity to be heard on any question which he deemed to affect the public interest. In pursuing its investigations the members of the Commission from time to time personally visited many points of interest in the district, and thus made direct study of the plans of improvement that

were brought to their attention. In the same way they inspected the railroad terminals in Boston, both for freight and passengers, as well as the water terminals, unoccupied water frontage, sites for docks and industrial development, and other features of the harbour of the district.

"The scope of investigation entrusted to the discretion of the Commission is a very broad one; indeed, it is almost as comprehensive as the whole question of the public welfare and progress of the metropolitan district. This surely includes the interest of the entire Commonwealth. For while the Legislature has from time to time set apart certain cities and towns as constituting, with Boston, a metropolitan district, for the purpose of establishing an adequate system of parks, sewers or water supply, such legislation has never in any degree implied a doubt that the interests of every portion of Massachusetts are inseparably involved in the interests and welfare of every other portion. Such tentative divisions into metropolitan districts have been principally for the purpose of securing unity of administration in these important branches of public works. The only practical limitation of inquiry to be found in the resolve establishing the Commission is in the definition to be given to the term 'public works,' and this, upon a fair interpretation of so comprehensive a resolve, would probably include almost any public undertaking.

"The range of permissive investigation thus suggested presents a life work for any man or body of men who should undertake to cover it. It was therefore manifest to the Commission from the beginning that only a few selected subjects could be adequately studied, and that even the study of these must, to a considerable degree, be preliminary rather than final. The Commission nevertheless imposed no limitation or restriction upon the subjects which any citizen desired to discuss before it, and many suggestions were made and theories proposed with reference to which it has proved to be impossible to reach a definite conclusion. In this report the Commission deals only with those matters which it regards as of most immediate concern to the public.

"An analysis of the resolve providing for the appointment of the Commission discloses at once a clear distinction made therein by the Legislature between those 'public works' generally which, in the opinion of the Commission, will tend to the betterment of the metropolitan district in any way, and certain specific subjects which the resolve makes it mandatory upon the Commission to consider. The subjects thus definitely assigned for study and investigation were 'the establishment of a systematic method of internal communication by highways, the control or direction of traffic and transportation, and the location of such docks and terminals as the interests of the district may demand.' It is obvious that these matters, thus set apart from all others for special examination, are, in their proper relations, but different phases of the one great question of transportation. Docks and terminals are necessary and component parts of any modern system of railroad or water transportation. The securing of a better system of internal communication by highways between the various portions of the metropolitan district is but another branch of the same comprehensive subject. Highway movement is essentially one of traffic and transportation, and it is the highways that supply the principal routes for street-railway and rapid-transit lines.

"The year 1907 was peculiarly a period of awakening, of self-criticism, of anxious questioning whether all was indeed well with the State and metropolis, and whether sufficient effort was being made to encourage and promote their future and industrial progress. In that one year at least twelve representative organisations of Boston participated in active measures of inquiry whether Boston was in truth living up to its present opportunities, and doing what was necessary to meet the demands of the future. These organisations were the Boston Chamber of Commerce, Associated Board of Trade of Boston, Boston Merchants' Association, Boston Real Estate Exchange, Boston Clearing House Association, Boston Central Labour Union, Citizens Association of Boston, Boston Society of Architects, Boston Society of Civil Engineers, Boston Board of Underwriters, Metropolitan Improvement League, Boston Stock Exchange, and Master Builders' Association. It would be difficult in any city to marshal a like number of organisations with a membership so generally made up of representative men. Upon the action taken by any of these societies there rested not the remotest shadow of self-interest; what they did was prompted from beginning to end by a lofty and disinterested public spirit.

"In addition to these many voluntary lines of inquiry as to the condition of the commerce and industries of Massachusetts, and the wiser lines on which to plan and provide for their future development, there were six separate instances of public action taken for the forwarding of these same self-searching inquiries as to what might be the deficiencies, the lack of enterprise, the point of failure, and the range of opportunity of the Commonwealth of the metropolis. These six public measures were as follows:—28th March 1907 the Legislature ordered the Boston Transit Commission to investigate the congestion and delay caused by teaming traffic and the movement of freight in Boston, and to report its recommendations; 28th May 1907 the Board of Harbour and Land Commissioners was directed by the Legislature to investigate and report as to the advisability of constructing and maintaining a system of metropolitan docks in the city of Boston, to be owned and controlled either by the Commonwealth or by the city; 7th June 1907 the Legislature gave to the Finance Commission, appointed by the Mayor of Boston as authorised by the city council to consider the financial condition of the city, the amplest power to summon witnesses and compel the production of books and papers bearing on that line of inquiry; 10th June 1907 the Legislature authorised a Commission on Commerce and Industry to investigate the present condition and future possibilities of the industries of this Commonwealth, the present condition and future possibilities of transportation, of manufactures and of industries, and to consider what might be done by legislation, by executive action, or by other means for the exploitation and development of the industries of the Commonwealth; 15th June 1907 the Legislature provided for the appointment of this Commission. Besides these five measures adopted by the Legislature, the Mayor of Boston, acting in pursuance of an order of the City Council, appointed a Commission to consider the sufficiency of, and possible improvements in, the docks and water terminals of Boston Harbour."

JOHN W. SIMPSON, H. V. LANCHESTER, *Hon. Secretaries, Town Planning Committee.*

PLAN FOR THE PRESERVATION OF WHITGIFT HOSPITAL.

The Committee for the Preservation of Whitgift Hospital have communicated to the Institute the plan they are putting forward as an alternative to the scheme proposed by the Croydon County Council for the widening of the principal thoroughfare of Croydon. As will be seen by the plans here reproduced, the Committee's object is to preserve Whitgift Hospital from the destruction which is to result if the proposals of the Croydon authorities prevail and their scheme receives Parliamentary sanction. The Preservation Committee claim that their plan gives all the widening of the road required at this point, and that it would be in every way as effective and not more costly in the end than the Council's plan. The Committee's case for the adoption of their alternative scheme is set out in a statement the material points of which are as follows :—

At various times during the past twenty-five years it has been hinted that the Hospital must be removed, but it was not until the year 1896 that any strong effort to effect the so-called "improvement" was made. It soon became evident that public opinion would not sanction the demolition. In eloquent language the then Primate, Archbishop Benson, reminded Croydonians of their duty, comparing the Hospital to the thatched cottage of Romulus, which for centuries was religiously preserved among the stately buildings of ancient Rome. What Romulus was to Rome, Whitgift was in many respects to Croydon ; and his Hospital was as worthy of retention as the thatched cottage of the great Roman.

In the year 1904 another attempt to rob the centre of Croydon of its chief architectural ornament was made. The Streets Improvement Committee submitted a plan of street widening which involved the demolition of the Hospital; but again a powerful opposition appeared, and the matter was deferred.

So far it has been sufficient merely to defeat the destructive policy. The increase of traffic in the main street, however, owing in a large measure to the advent of motor vehicles, has made a widening scheme compulsory.

Unfortunately the Streets Improvement Committee have adhered to the old plan which involves the destruction of the Hospital. The Preservation Committee's alternative plan was placed before them, but beyond getting out some conjectural figures, which put their own plan in an unduly favourable light from a financial point of view, it appears to have received scant consideration.

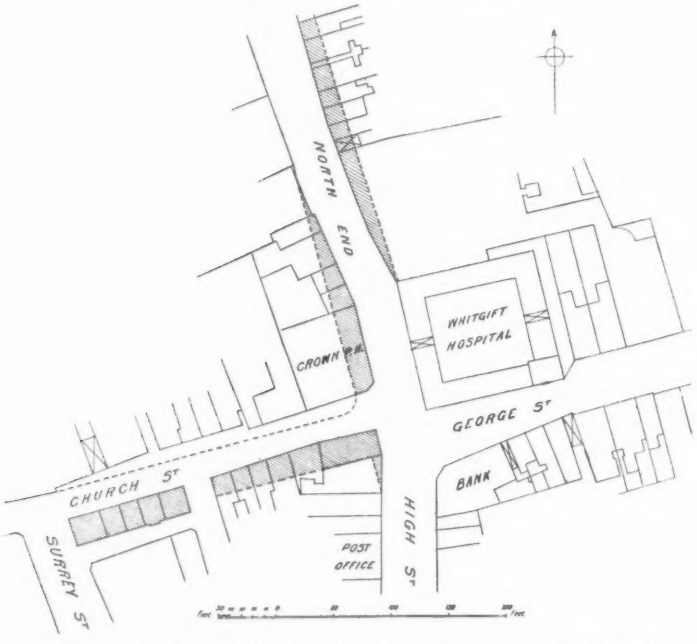
Before considering the rival plans the action of the Council a few years ago regarding the frontages on the north side of George Street may be recalled. At that time the old school-house, a building contemporary with the Hospital, and used in later years as an annexe of the Whitgift Grammar School, together with a modern addition to the Hospital, and two residences occupied by the masters of the Grammar School, stood on that frontage. The Council decided when these buildings were demolished to create a new line of frontage further back than the line of the Whitgift Hospital. It has been suggested that this has made the demolition of the Hospital inevitable, but the result has been to bless instead of to curse ; the Chapel of the Hospital has been brought into prominence, and when, if the alternative scheme is carried out, a distant view of the Parish Church Tower is obtained, the vista from George Street, with the Chapel in the foreground, may help to restore to Croydon its former title to be considered a picturesque town.

The scheme favoured by the majority of the Council makes a great point of the necessity of widening George Street, and its advocates are loud in their condemnation of the "danger" of the Whitgift corner, while some have gone so far as to describe it as a "death trap." Such assertions should not be made to support a scheme involving a very large expenditure without proofs being furnished. If the corner is really as dangerous as is asserted there would certainly be a dismal record of accidents, but most, if not all, of the accidents that have occurred in the proximity of the Hospital have happened either at the Bank corner or at the top of Crown Hill. The Whitgift corner instead of being dangerous is exactly the reverse, because no motorist or driver attempts to round it except in a cautious manner. The Bank corner, on the other hand, being more "inviting," is a far more likely place for accidents. The most that the would-be destroyers of the Whitgift Hospital can urge is that the corner is awkward, but this awkwardness could be removed by the widening of North End, as the footpath on that frontage of the Almshouses would then be at least double its present width, completely doing away with any inconvenience which may at present exist.

The Whitgift corner is a right angle, corresponding with the majority of corners even in the present streets of London ; it cannot, therefore, of itself be an element of danger. George Street, at its junction with North End and High Street, is about 60 feet in width, and, although it narrows up considerably at the Whitgift Chapel, that is too remote to affect the corner.

The inconvenience which exists will disappear if North End is widened on the west side, just as the traffic from Bond Street is easily regulated by passing into a wide thoroughfare like Piccadilly. Further, the Preservation scheme provides that, in addition to widening Crown Hill, that street should be more in a line with George Street, thereby doing away with the awkward turn which vehicles have to make in passing from one thoroughfare to another.

CROYDON COUNTY COUNCIL'S SCHEME FOR THE WIDENING OF NORTH END AND GEORGE STREET, CROYDON, INVOLVING THE DEMOLITION OF WHITGIFT HOSPITAL.



ALTERNATIVE SCHEME BY THE COMMITTEE FOR THE PRESERVATION OF WHITGIFT HOSPITAL.

Another point the advocates of demolition urge with regard to George Street is that to widen it on the southern side would be very expensive; but is it necessary to widen it at all, at any rate at present? and, even when it is necessary, the building line on the southern side of George Street being at the narrowest part several feet in front of the Bank line, it would be comparatively easy at some future date by straightening this line to add considerably to the width of the street at this point. The narrowest portion commences at the Chapel of the Whitgift Hospital, where the street is about 31 feet wide, but it rapidly widens out. This short and comparatively narrow portion is never congested, and for a very obvious reason. The frontages in other portions of the street are almost entirely occupied by shops. In front of the shops throughout the day vehicles are often standing; the roadway, therefore, available for through traffic is narrower to that extent; but at the George Street frontage of the Hospital no vehicle ever stands, while on the opposite side of the street the businesses, mainly professional, seldom require any vehicle to be at their doors, consequently that portion is more free from obstructions than the other parts.

The alternative scheme, which the Council have rejected, deals with a thoroughfare which really requires relief and which must be dealt with in the course of a few years—viz. Crown Hill. The narrowest portion of this congested street is only about 25 feet in width. The carriage way at this point is only about 15 feet in width, and the junction with North End is only a little over 30 feet. An effective improvement of this street involves the setting back of the "Crown" Hotel and adjoining shops, thus carrying out the very necessary widening of North End without interfering with the Hospital. Surely an impartial observer viewing Crown Hill and George Street on a busy day must admit that a scheme which deals with the former is worthy of consideration. The property which would have to be acquired in that street is not of great value, and the goodwills of the various businesses would be obtainable at moderate prices. Further, the scheme which most effectively improves the main street is the one that deserves adoption, and a glance at the plan will plainly show that the alternative we are advocating to the Council's scheme by the demolition of the "Crown" and adjoining shops will *straighten* the street. The Council's scheme, on the other hand, accentuates the present bend. This of itself is a serious objection, quite apart from the question of the demolition of the Hospital.

There are, unfortunately, a number of people who cannot see any beauty in the architecture of the Hospital; there are, probably, many in Croydon who do not appreciate the oratorios of Handel or the paintings of Turner; to such the æsthetic side of the question can never appeal. On the other hand, many fail to appreciate the beauty of the building because of its uncongenial surroundings, just as a fine picture may be spoiled by being badly framed. To these a few words may be said. Under the alternative scheme, important frontages in the neighbourhood of the Hospital will be under the control of the Council. It will be easy to insist that the architecture of the new elevations shall be either in accord with or complementary to that of the Hospital. If such an improvement is carried out with the advice of men of taste and feeling, the centre of the town of Croydon may be made as beautiful architecturally as it will be convenient to business. The Council's scheme, from an architectural point of view, is simply deplorable; the three remaining corners, after the Hospital is demolished, would be all different; the Bank corner has a radius of about 25 feet, Briant's corner is a right angle, while the "Crown" corner is bevelled off. To these it is proposed to add a new corner with a radius of 40 feet; a state of things more incongruous or more offensive to good taste cannot be imagined.

The question of cost, although it should not be the dominant factor, is, of course, very important. The Borough Engineer estimates the difference between the two schemes at £60,000, but at the end of his report he adds the following:—"The above estimates are based on buying out the entire properties, including all business interests; but no doubt in many instances the Corporation will be able to acquire the portion only required for improvement purposes, saving business compensation, and consequently the net cost to the Council should work out much less than the estimates." Now this is the crux of the whole matter. The goodwills, which are included in the alternative scheme, and not in the Council's scheme, are put down at a very large sum. In every one, with one exception, of the premises in North End and High Street it is reasonable to anticipate that compensation for interruption to trade and damage to stock during rebuilding would be accepted, as each trader would eventually occupy new premises superior in every way to those he vacates. It is contrary to human nature to assume that the occupiers would be dissatisfied with such an arrangement, or would wish to place obstacles in the way of an improvement. If the Council scheme is carried out, Crown Hill will still remain to be dealt with under conditions far less favourable, so it is very probable that the town, besides losing its Hospital, would be ultimately committed to a much greater expenditure.

An opinion has been expressed that the awkward gradient of Crown Hill would prove an insurmountable obstacle to the proposed improvement of that street. This is far from being the case; in fact the gradient could be considerably eased by the exercise of first-class engineering skill.

REVIEWS.

WESTMINSTER ABBEY.

Westminster Abbey. By Francis Bond, M.A. Oxon., 8o. Oxford, 1909. Price 10s. net. [Henry Frowde, Oxford University Press.]

Mr. Bond's book is a most excellent and interesting survey of the fabric and history of Westminster Abbey and the literature concerned with it. The general account of it as a Royal Church, a Monks' Church, a Pilgrims' and People's Church, cannot but enlarge the vision and stimulate the minds of readers, and thus greatly add to their understanding and enjoyment of the church. It well fulfils its purpose set out in the Preface, of being a comprehensive account of the Abbey on a reasonable scale, and it is illustrated with a profusion of entirely new photographs, together with other illustrations. Altogether there must be nearly as many figures as the 325 pages. Some of the photographs, specially taken, I suppose, by Mr. Bond himself, are entirely admirable as illustrations of architecture; such especially are the half-dozen perspective plans of vaults from page 89 onwards. Many of the smaller details have, I think, never been taken before. The writing is clear and interesting.

When a writer has got through some heavy work—and this is a piece of such work—he would like reasonable discussion of points raised; and yet there is the difficulty that discussion can generally only be of differences, or at least of that which does not seem to be proven. Reviews of books fail equally if they merely say ditto, or if, on the other hand, they magnify shallow objections and point out trivial errors. I therefore select two points of importance only, on one of which I think Mr. Bond may be wrong, while on the evidence before him he was free to put forward his view; and the other on which I think he is wholly wrong, although he had all the evidence which, so far as I know, is available.

The last question first. Mr. Bond decides that the design of Westminster must have been made by a French architect, and that English appreciation and appropriation of French ideas will not sufficiently explain the facts. Against this I would recapitulate some of the points of evidence which are well known, some of which are mentioned by Mr. Bond himself.

(1) Much of the plan is conditioned by the site and earlier buildings. A marked example of this is the intrusion of the cloister into the aisle of the south transept, and there were other fixed points to the East and the West.

(2) Where ideas have been taken from French sources they have been *re-adapted* in a large, free manner, as, for instance, in the throwing westward of the radiating chapels.

(3) Some parts even of the planning are typically English, notably the octagonal Chapter House and the long noble transepts.

(4) Then coming to the large architectural features, one by one. It seems to me that the ground arcade with its narrow bays (Mr. Bond himself says they were conditioned by the old Norman work, p. 82), its slender marble columns, so slender that I think they must have been conceived as of marble from the beginning; their moulded capitals (one of the points which would have been exaggeratedly indicated on a French design would have been *carved* capitals); its acute arches, so entirely different, not merely in feeling, but in the relation, of the heights of pier and arch from French examples; it seems to me that all this is English architecture designed for its place and purpose, not an interpretation of a Frenchman's drawings. The whole scheme of the Triforium stage is equally conditioned, and equally English. Mr. Bond himself says: "To the full development and to the disposition of its Triforium, more than to anything else, the Westminster design owes its supreme excellence." Yet, as Mr. Bond allows, it seems to be taken over, so far as the idea of a second story to the aisles goes, from the Confessor's Church. As to its bay design, it is surely distinctively English in the disposition of parts, and it seems to be in the line of development—Canterbury, Lincoln choir, St. Albans west end. Each of the two divisions is practically the same design as that of the windows over again, an arrangement that it would be hard to match in France. As to the upper story, the vaults are admittedly and characteristically English. I have not here spoken of mere mouldings and details, but of essential architecture and the design.

(5) What, then, *is* French? Certain large architectural factors, just such ones as might be set down in a mason's note-book; exactly such ones as we know were set down by V. de Honnecourt; such, for instance, as the specialised plan of radiating chapels, the window patterns of bar tracery, the large squared roses of the transepts, the portals of the north front, the developed flying buttresses. Having these in mind, Mr. Bond commits himself to the statement, "It is utterly impossible that Westminster can have been designed by anybody but one who was born and bred in the great French school of the Ile de France and Champagne, who had practised that school of design only, and who knew nothing else. No English architect, whether he went to France for a short or a long visit, could have designed Westminster." This is certainly a large and definite statement, and as an architect I can only energetically deny it. What we find, in fact, is the laying hold of French forms in the lump, and then re-adapting them. This is just what any trained architect is able to do in a short time. For instance, this is what Inigo Jones did in Italy in the seventeenth century. Save for travelling time I would venture to say that an expert master might have gained all he wanted for Westminster, at Amiens, Paris, and Rheims in a week. At

Westminster, says Mr. Bond, "One sees in essentials French Gothic, pure and simple, without the slightest tincture of contemporary design." It must be with other eyes than mine, and I cannot here but recall that when I once wrote that Westminster was influenced by the architecture of Rheims, I was told in print, by a friend, that there was no more resemblance than between Monmouth and Macedon.

(6) Mr. Bond seems to me to force the evidence when he says: "The central piers are slender, as in the Ile de France, so that no central tower was possible" (p. 106). Wren says, "It was plainly intended originally to have had a steeple, the beginnings of which appear at the corners of the cross, but left off before they rose so high as the ridge of the roof." In the accounts for the coronation of Edward I, boarding for "the new tower above the choir is mentioned." Henry VII calls the crossing "the lantern" in his will. This ample record evidence is borne out by the facts of the structure. The internal arches show that here no vault was ever contemplated at the general height of the other vaults. Outside, the squinch arches across the four angles are original inside the outer casings; their purpose was to let the parapet walks pass round a central tower. This tower, I suppose, was intended to be like the earlier part of Salisbury's central tower and the central tower of Beverley. "Wholly French," says Mr. Bond, "is the noble façade of the N. transept." Surely this is not so in the tympana of the doors (the present middle one does not represent the original form), and these should be the very centres of Frenchness; it is not so in the "Early English" windows of the second stage, nor in the four tall solid pinnacles, nor in the flying buttresses coming to the front. Notwithstanding the appropriation of ideas, I venture to say that this front would have looked more English if in France than, being in England, it looked French.

(7) Again Mr. Bond claims that the church, "being un-English and alien, was unpopular, and had little influence on English architecture . . . the only important exception is the north transept of Hereford." I can only repeat what I have already said in another place: "The work at Westminster exercised an enormous influence upon subsequent buildings in England. Its erection marks the close of the lancet and the opening of the geometrical period. Of direct imitations the most direct, as regards the plan at least, was Hayles Abbey. The radiating chapels at the not far distant Tewkesbury were probably in turn derived from Hayles. Tewkesbury also contains 'triangular' windows like those in the nave of Westminster, and similar windows, clearly derived from our abbey, are to be found in Lichfield and Hereford. The eastern wall of the great new work begun at St. Paul's in 1256 was modelled on the transept ends of Westminster. A similar extension at Lincoln, begun about the same time, shows in its south porch a study of the north portal in the Abbey [the whole inside and out is largely derived from Westminster]. At Salisbury the Cloister and Chapter House were evidently inspired by those at Westminster; even minute points may be traced to this source. Minor instances of affiliation are too numerous to mention; two of the most striking are parts of the W. front of Dunstable, and the well-known case of Stone Church, Kent."

(8) Absorption of ideas and borrowings from France are admitted; the infiltration was so constant that the supposition of sketch designs for once received from France does not meet the case. Willis thought that Lincoln was very French, and I may point out that five-part vaults like those of the aisles are found at Rouen; so are low arches beneath the parapets like those of Lincoln Chapter House. Must we suppose that Lincoln was designed at Rouen? The West portal of Salisbury is so like that of St. Nicaise at Rheims that I can hardly suppose it fortuitous (see fig. in V. le Duc). The noble nave of York (interior) has a curious resemblance to the choir of Clermont Ferrand. It is necessary to find a general formula for all these, not for one only.

(9) The idea of covering the arch spandrils with diapering, one of the big characteristics of Westminster, seems to be English. The ideal of having a church largely of polished marble was, I should say, present from the first conception of Westminster, and this tradition is taken over from Salisbury, Winchester Hall, and the Temple Church.

(10) Again, we have internal growth and modification as the work went on, which shows that there was no adherence to an authoritative design even during Henry III's life; such were the narrow blank arches added at the side of the windows on the exterior of the western limb, and the redesigning of the vault of the choir, and many minor changes, results of perfect freedom. The total "expression" of Westminster has nothing of the force and pride of French work; it is sweet, tender, and English.

(11) Finally, there is a logical dilemma. The octagonal Chapter House vaulted from a slender central column seems to have been invented and developed in England. Now what M. Paris calls "the incomparable Chapter House" of Westminster contains in its large four-light windows of tracery a borrowing from contemporary French work, more "up to date" than any other feature built up to this time (1245–50) in the church. The Jesse-tree sculpture of its west door seems to be borrowed directly from Amiens. Just this most English part then is also the most French.

(12) Another last point is that the borrowings for the greater part are of fashions thirty or twenty years old; the Chapter House windows and the much later transept roses are the only points abreast of the French movement.

Theoretically anything might be true; King Alfred might be a Danish changeling, Shakespeare might be a belated Italian humanist; on such lines of putting a case Westminster *might* have been designed in Paris by Pierre de Montereau. But Mr. Bond's hypothesis of a French architect does not explain the facts at Westminster as does the theory of the two Scotts that the architect was an Englishman who was acquainted with what had been done in France.

. . . . .

The other question which I will touch is that concerning the Confessor's Church. Mr. Bond agrees that it probably had a vaulted triforium; but, accepting also the view which has been held by everyone that Westminster had a pillared apse surrounded by an ambulatory, he claims that as this feature would have come *ultimately* from Tours, so the vaulted triforium might also have come from the same source, and he proceeds: "Hence it follows that whereas all the text-books tell us that our English Romanesque is derived from Normandy, there are in reality two separate sources, the second being the Confessor's Church at Westminster." He would thus make our whole architectural history turn on a derivation from Tours. I would just remark on this that we have no knowledge whatever as to the existence of a vaulted triforium at Tours. It is unlikely that even if there had been an ambulatory at Westminster it would have been derived *directly* from the original centre from whence the whole series may have radiated. The true content of the argument is only that several large features of the Confessor's Church are likely to have come from some one immediate source. That is, either from one of the places where there was a vaulted triforium, or one of the places where there was an ambulatory, if indeed Westminster had one.

I had never seen the stumps of the piers of the Confessor's Church until about two years ago, but subsequent examinations have convinced me that they were more probably parts of wall-piers once attached to a closed-in presbytery, rather than fragments of pillars which once divided it from an aisle. They consisted of pilaster strips with bold half rounds in front, and although in themselves they might have belonged to isolated piers like those at Winchester, it is almost impossible to imagine the chance which should have led to just these members surviving while the rest of the piers were entirely grubbed up. Moreover, they are found *attached* to a wall which has been assumed to be part of Henry III's foundations built up against the fragments, and this exactly alike on both sides of the presbytery.

Further, of the two piers on the N. side, being the first and second from the crossing, the second is different in having to the *west* an additional outer square member so that it projects forward about a foot in front of the other pier.

These facts can best be explained by supposing that the second pier represents the respond of an apse terminating at the second bay a closed presbytery. Mr. Bond will, I am sure, appreciate the force of the evidence as to wall-piers and the greater projection at the second bay if he will turn to the plan of Cerisy, and consider it with what he has said on this type—"this was the normal plan of eastern limb which the Norman builders brought over to England." The prototype of Cerisy was Jumièges. According to this reading the bays of the Confessor's Church would have been about 17 ft. 6 in. wide instead of 19 ft., and, a most important point, the site of the altar would not have been moved by Henry III, for the position of his altar came just on the chord of the apse now postulated. The old presbytery would then have been of the normal two-bayed type found in early Norman churches. Thus, too, the site of the old altar really conditioned the short presbytery of the present church, an extraordinary feature which has never been adequately explained. Finally, the plan so obtained coincides perfectly with that of Jumièges, a church which we know had an important vaulted triforium. An objection can be made regarding the position of the Lady Chapel of 1220, which has been assumed to have opened directly from the ambulatory of the Confessor's Church and extended as far as the apse of Henry VII's Chapel, where foundations of an apsed end were discovered in digging Dean Stanley's grave. Whatever be the weak link here I cannot think it probable that all these assumptions should be true. It is not likely that an apsidal-ended chapel of the type put forward, and over 100 feet long, would have been built in England in 1220. It is very doubtful whether a wooden roofed chapel such as that was would have an apse. During the work at the church this roof was removed and the chapel was vaulted; it may then have been lengthened, or it may very well have stood detached from the Confessor's Church like the chapel (of St. Piat?) to the east of Chartres Cathedral. If my present views are correct as to the Confessor's apse, the span of the church was considerably less than that of the present church, and the whole would have been smaller than I had supposed, although I had suggested reducing the older estimate.

The word *ambitus* in the written description of the church referred, I suppose, to the aisles E.W.N. and S.; in the Jumièges type they were continued even across the ends of the transepts. Beyond the detailed considerations just set out, it may be said that it is more likely that Edward the Confessor followed the fashions of Rouen, Jumièges, and Caen than the style of Tours. Two indications of style which we have in the form of the piers and the profile of the bases bear this out, for they are distinctively Norman; the base made only of two

hollows is found at St. Stephen's, Caen, and it is *the* base at Jumièges. The ambulatory plan did not reach Normandy till about 1070, and three or four important churches were built of this type in the next ten or twelve years. Irrespective of the supposed sporadic case at Westminster the plan would have reached England in due course about 1080. The development of English churches becomes regular if Westminster is to be given to the other older type, and it is a member of the series, Jumièges, Westminster, St. Stephen's Caen, Cerisy, Canterbury, and we can understand why Lincoln, Durham, and Peterborough might continue in the ancient ways. All the facts gathered up together show that Westminster was probably a copy of Jumièges. W. R. LETHABY.

THE ITALIAN RENAISSANCE.

The Architecture of the Renaissance in Italy. By William J. Anderson. Fourth edition, revised and enlarged. 8o. *Lond.* 1909. *Price* 12*s.* 6*d. net.* [*B. T. Batsford, 94 High Holborn, W.C.*]

The pressure of modern life leaves but scant leisure for study except in branches immediately connected with actual professional needs. Even our favourite books stand unopened on the shelf. Like their bindings our recollection of their contents fades from year to year. Any circumstance then which tends to disturb our acquiescence in the habit of neglect, to direct our attention once more to the authors we have read with profit, which gives us an opportunity of reviving the enthusiasm of student days and testing the foundations of the faith laid in us at that impressionable age, should be hailed with gratitude.

Such a circumstance is the appearance of a new and enlarged edition of Anderson's *Italian Renaissance*. Pleasure in welcoming it is dimmed only by regret for a career so prematurely cut short when it gave promise of much good work in this and similar domains. The epithet "epoch-making" has become so hackneyed that it has lost much of its force, but it is not too much to say that it can be applied in fullest meaning to the first arrival on the scene of this work. That such a book was—and continues to be—much needed by architectural students of English speech the call for a fresh edition on an average every three years is a conclusive proof. They had previously to depend for information on the Italian Renaissance on the necessarily meagre sections devoted to the subject in general histories, or on expensive monographs which were but seldom accessible to them. Any tolerably compiled text-book, if freely illustrated, might under the circumstances have secured a large circulation. But Anderson gave us no mere compilation. There was nothing of the Dry-as-dust about him. He gave us a well-written exposition of what he conceived to be the most vital periods of the Renaissance of architecture in Italy; he presented it with judiciously chosen illustrations and in a style inspired by a stimulating and infectious enthusiasm. The book was of convenient size, moderate in price, and illustrated largely by photographs, which conveyed an entirely new impression of buildings known hitherto too often only through the medium of lifeless geometrical drawings.

The moment of its appearance was peculiarly happy. It exactly met the needs created by a change in the architectural outlook of which it was itself one of the symptoms. The greater men of the Gothic Revival had done their work or were approaching the end of their career. The movement had spent its force, and experience had proved that at any rate as regards the design of domestic and secular public buildings it had failed to justify the hopes raised in its early stages. Fergusson and Ruskin were, however, still the great luminaries in the student's firmament. Both, in spite of their great services to architectural studies, were ever—and at that time particularly—somewhat bewildering guides: Fergusson by his see-saw methods of criticism, alternately arousing admiration for the subject of his remarks and checking it by douches of cold water, a process which left a cloudy impression on the mind that the architects of all time had only failed of complete success because they had not had the advantage of Fergusson's collaboration; Ruskin by the enunciation at different times, or even in the same book, of mutually destructive principles. Like most of the writers of the Middle Victorian era they were unsympathetic to the Renaissance, and keener to detect superficial failure or excess in its works than those essential truths on which it is based. They did not see that its rise and spread was rendered possible and necessary because there was a whole side of man's æsthetic nature which mediæval art with all its triumphs had left unfed, and which could only find satisfaction in forgotten elements of design recovered by the study of the monuments of Greece and Rome.

The young men who went to Italy or the banks of the Loire, to our own Elizabethan manor houses, to Versailles, or to Greenwich, and saw there much that filled them with admiration, much that they wanted to sketch and imitate, when they came home and read their authorities found that it was all a mistake: they had been admiring a "pestilent art," they had been degrading their taste by studying mere "copying" styles; and great was their discomfiture. Anderson's book came as a balm to many a mind smarting under the lash of hostile and unfair criticism, or the scarcely less galling ordeal of half-hearted and patronising approval, but still cherishing in the teeth of his instructors a deep-seated if shamefaced love for the Renaissance. Here at last was a writer who spoke with authority yet appreciated ungrudgingly—no unreasoning fanatic, but one who could set forth convincing grounds for his admiration. When once it was realised that it was futile to apply to any art canons of criticism which its exponents do not

admit, or to vituperate them for not doing what they did not profess to do, the ground was cut away from under the feet of the opposing school. Anderson further deprived its criticism of much of its force by showing the importance of the early and more vital phases of the movement, which had been hitherto in large measure ignored, and treating rather summarily the—to him—less interesting later developments, which had hitherto borne the brunt of the attack.

There is something rather pathetic now in this polemical aspect of Anderson's work. The need for it which was still urgent when he wrote has to a large extent passed away. The world has moved on since the early nineties. A whole-hearted defence of the Renaissance was even then still a rather daring adventure, and if we are now allowed to indulge our proclivities in that direction without incurring the charge of moral obliquity, we are indebted for the privilege in no little degree to a group of works on the Renaissance in our own and other lands which appeared at that time, and foremost among them to the book before us which led the way back to the fountain-head in Italy.

Perhaps the world has moved further even than Anderson would have approved. The battle of the Renaissance being now won, to some of us it would not come amiss to see fuller treatment of the later periods. Anderson himself, in spite of his revolt against the teaching of his day, still retained—it is curious to notice it—a tinge of its prejudices, and when he reaches the seventeenth century not only compresses the whole of it and more into a single short chapter, but falls into his opponents' habits of abuse, and besprinkles his pages with such expressions as "decadence," "execrable work," "corrupt style," "impudent," "unprincipled," and so forth. He confesses, however, in his preface that in the interval between delivering his lectures and sending the book to press he had somewhat changed his point of view, and that a corresponding alteration in the book would have resulted in a complete re-writing. Whether such a revision would have included an extension in the direction suggested we have no means of knowing; but, considering the circumstances, his decision to retain the original form was no doubt a wise one, and Mr. Arthur Stratton in editing the present issue had no choice but to be bound by it. Nevertheless a full critical study of the whole achievement of the Italian Renaissance down to the end of the eighteenth century is much to be desired. A work of this kind would in no wise supersede Anderson's, which for many a long day will remain the best of all possible introductions to the subject. It would supplement it and open fresh fields of study for those who wish to go further than Anderson professes to guide them. It might also show us that there was perhaps something to learn from that dreadful bugbear the barocco style, that monster of licentiousness and shameless audacity whose very name causes a shudder of righteous indignation in right-minded bosoms, some lessons of forceful vigour and plasticity which we may sometimes look for in vain in more correct performances. It would certainly show that barocco does not cover the whole field of the seventeenth and eighteenth centuries, that the parallel stream of pure classicism produced some not altogether contemptible work. Something, it is satisfactory to observe, has been done in the new edition to mitigate the rather unjust treatment meted out to the later phases by expunging, for instance, such a passage as that in which the Genoese palaces were unduly depreciated, and by introducing reference to, and illustrations of, later examples.

Even had this not been done it would be ungrateful and unfair to quarrel with our author for not giving what he expressly disclaims the intention of giving. By his contribution of light and learning within the limits he laid down for himself, he placed architectural students under a lasting obligation. No small meed of gratitude is due to Mr. Stratton for the admirable manner in which in the edition before us he has filled up lacunæ, clarified obscurities, and generally strengthened the work by the removal of the blemishes—few and minute though they were—which it contained, as well as by introducing the slight alterations involved by changes in the illustrations. All this work, requiring both painstaking labour and wide knowledge, he has accomplished with complete success and almost excessive self-effacement. Although few paragraphs in the book are not in some way affected by the revision, only a close comparison between the editions could disclose his share in the work, while Anderson's individuality remains—as Mr. Stratton claims—stamped on every page. At the same time the bulk of the book is hardly at all increased except by the strengthening of the illustrations, which is a salient future of the new edition.

The alterations introduced by Mr. Stratton in this department are almost without exception for the better. The line that has been taken in many cases of supplementing photographs by measured drawings and *vice versa* results in the ideal method of presentment, enabling the reader both to judge of the effect produced and to analyse the methods used in producing it. Examples of cases where this has been done are the Cancelleria and Farnese Palaces in Rome, the Pazzi Chapel and Riccardi Palace at Florence, the Basilica at Vicenza, the organ in the Hospital Church at Siena, the Redentore and—now, alas! destroyed—Loggetta at Venice. Elsewhere a better point of view or a more instructive method of illustration has been chosen to replace that formerly given, as, for instance, in the Palazzi Bevilacqua and Albergati at Bologna, the tempietto at San Pietro in Montorio and the Farnesina, the Confraternità di San Rocco and the Library at Venice, the duomo and Santo Spirito

at Florence. Again, while several illustrations, whose interest was not strictly architectural, have wisely been omitted, their places have been taken by others of buildings not figured in previous editions, such as the Palazzo Pandolfini in Florence, the churches at Todi and Monte Pulciano, the Gran' Guardia Vecchia at Verona, the Palazzi Balbi and dell' Università at Genoa.* Another instructive and at the same time beautiful feature is a page on which four of the successive plans for St. Peter's are grouped together. Several of the new illustrations are reproduced from vigorous drawings by Mr. Leslie Wilkinson. Great pains have evidently been taken in the arrangement of the plates and other figures so as to ensure that, wherever it is physically possible, they should stand in convenient relation to the text they illustrate, and that mutually complementary figures should be opposite one another.

In conclusion there remains but to offer hearty congratulations to Mr. Stratton for the admirable way in which with the help and advice of Mr. R. Phenè Spiers he has carried out what must have been a harassing and somewhat thankless task, and to Mr. Batsford on the need for a new edition of this good book, so representative of the great traditions of his house, and on the enterprise displayed in bringing it up to date.

W. H. Ward [*A.*].

STAINED GLASS WINDOWS.

Windows: a Book about Stained and Painted Glass. By Lewis F. Day. Third Edition, revised and enlarged. 8o. *Lond.* 1909. *Price* 21*s. net.* [*B. T. Batsford, 94 High Holborn.*]

All the details of the history and craftsmanship connected with stained and leaded glass are deeply interesting to modern workers in this fascinating form of art. Mr. Day has, with great care and at great length, detailed the methods of the workers in the past—their beginnings and their developments onwards—from simple geometric forms of ornament to the pictured figure compositions of sacred art, legend, and story. The various methods described by him of fourteenth-century work are of great value to the artist and craftsman. They prove how the colour qualities of the metal—whether pot or flashed—are enhanced by well-considered painting-in of details of ornament, the use of the needle, stippling, rubbing off of high lights, or by any other means the artist may employ in the pursuit of his artistic ideal. Painting on glass forms a necessary screen and puts a seal on his colour, thus preventing the bleaching of the finer phases of its tones.

It is rather the fashion at present to advocate that a window should be treated as we do mosaic, having all its natural colour untouched by paint. The result of this method is a wholesale dilution of colour depths, so that fine rubies in a strong light become a pale pink, and so on in other colours. Apart from good colour, stained windows are capable of bearing many deeply interesting messages to humanity.

Mr. Day does not mention what many consider to be the finest windows in Spain—those in the cathedral and church of Sta. Maria del Mar in Barcelona. Spain has many fine examples of painting on glass with a liquid or full brush, showing the Spaniards' natural genius for direct technique in the manner of Velasquez.

We are always confronted by problems in art which gleanings from tradition will not entirely solve. In modern windows there are conditions of light and its admission, reflected light from other windows, of forms of openings, of the most suitable scale of figures and subjects to fill the small or large areas, of the illustration of modern incidents, &c. So that when we are armed with the devices of our own craft and that of the old men, there still remains a formidable wall to scale. Mr. Day, however, has given us a book of reference which should earn the gratitude of all students and craftsmen concerned with the making of windows.

In the preface it is stated that "we are workmen first and artists afterwards." Should not the last be first? The possession of the artistic instinct is the real justification for learning the craft which shall give it permanent form.

T. R. Spence.

ARCHITECTS' LAW REPORTS.

The Architects' Law Reports and Review, Vol. IV. By Arthur Crow [*F.*] *and A. F. Jenkin, Barrister-at-Law.* 10*s. net.*

With most of us law is at best but an uncertain thing, and anything which helps to clear up its mysteries is to be welcomed. The fourth volume of *The Architects' Law Reports* has recently been issued, and like its predecessors bears evidence of the care and skill bestowed by the editors upon this most useful publication. Architects in general are not fond of wading through the reports of judicial decisions in the newspapers in search of information which may be useful, and Mr. Crow has rendered a very great service to the profession in thus placing within such handy compass a clear and succinct record of the principal cases likely to interest architects and surveyors, whether practising in London or in the provinces. Mr. Crow's work in this direction deserves a much wider recognition; and members of the profession who have been accustomed to make paper cuttings of the cases which interested them might well save themselves much unnecessary labour and inconvenience. The idea of combining drawings of the more intricate cases with the ordinary judicial report is one that will commend itself to all architects.

* One is inclined to regret that among the new illustrations room could not have been found for the court front of the Palazzo Pitti, whose system of rustication has exercised a widespread influence, one instance of which is the Luxembourg Palace in Paris.

The cases reported in the present volume are thirty-eight in number, and cover a wide field—from arbitrations, compensations, and assessments, to professional practice, employer's liability, landlord and tenant, conveyance, light and other easements, London Building Acts, and Public Health Acts, drains and sewers, streets, highways, and bridges.

Among the most interesting cases recorded are reports of the following:—*Hunt* v. *Acton Urban District Council*, mention of which case has already been made in the JOURNAL. The Court held that an architect was entitled to recover fees from a public authority for the preparation of a modified scheme according to instructions, although the original agreement only was under seal.

Jones v. *Pritchard*.—This was an action between adjoining owners for an injunction to restrain a nuisance arising from smoke finding its way through a party-wall from a flue situated in the centre of the wall. It was held that an easement existed for smoke to pass into the flue, and that as the defendant had exercised his right fairly and reasonably, and in the manner intended when the easement was granted, the action for an injunction failed.

The cases dealing with rights of support and of easements of air and light are five in number. *Cable* v. *Bryant*, *Richardson* v. *J. H. Graham, Ltd.*, and *Hyman* v. *Van den Bergh*, dealing with light and air cases, being probably the most interesting of those reported.

Under the heading London Building Acts reports are given of seven cases: *County of London Electric Supply Co., Ltd.*, v. *Perkins*, in which it was held that the limited size of the structure or work involved—an electric cable street box—did not dispense with the necessity of serving a building notice as required by Section 145 (*a*) of the London Building Act 1894.

London County Council v. *Spink & Son*, dealing with the deposit of plans required by Section 7 (1) of the London Building Acts (Amendment) Act 1905.

Attorney-General v. *Metcalf & Greig and others*.—The height of buildings erected on a street less than 50 feet wide, and made since 1862, is limited by Section 49 of the London Building Act 1894 to the distance of the front or nearest external wall from the opposite side of the street. The Court of Appeal held that in measuring the height of the building it is not competent to the Court to take into consideration the distance of the front wall of each separate part of the building from the opposite side of the street; and that, where a small portion of the building is recessed behind the general line of frontage, the general line of frontage must be taken as the determining factor. It was also held that the section cannot be evaded by building a series of front walls in steps one behind the other. The building in question was a corner building fronting on a street 40 feet wide, the height, however, at a distance of 20 feet back being increased to 60 feet; and the Court held that the building had one line of frontage and one front wall exceeding 40 feet in height, and that it contravened the section.

Lilley & Skinner, Ltd., v. *L.C.C.*, *Fleming and others* v. *L.C.C.*—questions of building line in Pentonville Road and Euston Road.—The drawings reproduced in the latter case help very much in the elucidation of the arguments used.

Crosby v. *Alhambra Co.*, in which it was held that a party-structure notice to be served on an adjoining owner must be served on every person in receipt of rents or profits arising from such premises.

Moran & Son v. *Marsland*.—Covered water reservoirs were buildings or structures to which the duties of the district surveyor extended under the London Building Act 1894, and that the district surveyor was entitled to his fees.

Dealing with Public Health Acts and the vexed question of what constitutes a "drain" and "sewer," two cases are reported, *Bromley Borough Council* v. *Cheshire*, and *Wood Green Urban District Council* v. *Joseph*, the latter a House of Lords case of considerable importance which will prove very useful in a work of reference of this character.

Under the heading of streets, highways, roads, &c., seven cases are reported, nearly all of interest to provincial practitioners.

The volume contains a reprint of the London County Council (General Powers) Act 1908, Parts I.–III., IX., and also of the Telegraph (Construction) Act 1908, with notes on the bearing of the new sections upon the older enactments on the same subjects.

Another feature which should interest metropolitan readers is an article headed "Housing and Town Replanning," by Mr. Arthur Crow, in which the author extends the idea of the new avenue suggested by the Royal Commission on London Traffic, and reviewed by Mr. Paul Waterhouse at the Institute in 1906, and suggests the formation of a central avenue and boulevard, from Shepherd's Bush to Canning Town, running approximately parallel with Oxford Street and Euston Road. The width of the avenue is suggested as 225 feet between the buildings, allowing 75 feet for each side of the avenue and 75 feet for the central boulevard. The idea is that for each half of the avenue a double line of trams should be provided, one track being reserved for express cars and the inner line of rails for cars stopping at the ordinary intervals.

The article is well illustrated by photographs showing the possibilities of the scheme, and it is undoubtedly one which will have its influence on the final fruition of any such proposal. The author wisely refrains from any estimate as to the

cost of the scheme, but contents himself with allowing the whole to be spread over a period of twenty to twenty-five years, the more congested sections being naturally dealt with first. There are many points which are worthy of considerable study in such a proposal, and Mr. Crow is to be congratulated on having reintroduced such a topical subject in the present volume of *Architects' Law Reports*.

W. R. DAVIDGE [*A.*].

BUILDING CONSTRUCTION.

Building Construction: A Text Book on the Principles and Details of Modern Construction, for the Use of Students and Practical Men, by Charles F. Mitchell, assisted by George A. Mitchell. Sixth Edition. 8o. *Lond.* 1909. *Price* 6s. [*B. T. Batsford, 94 High Holborn, W.C.*]

Mr. Mitchell's well-known work, now in its sixth edition, contains much additional matter which cannot fail to be of service to students. Several branches of the subject, which in the previous edition were grouped together, now occupy each a separate chapter. This is the case with concrete, asphalte, brickwork, flues, &c., and girders. The whole of the first chapter is now devoted to limes and cements, with new matter, including descriptions of processes of manufacture and illustrations.

The subject of concrete is treated in chapters ii., xii., and xxii., which deal respectively with the material as used in foundations and reinforced beams, &c. There is much useful information as to the behaviour of concrete under various tests, the chapter on foundations being considerably enhanced in bulk and including diagrams and calculations relating to grillage foundations and ferro-concrete piles.

Some of the author's statements are well within the mark for safety. For instance, at p. 236 we have a table in which the safe load upon concrete foundations formed with Portland cement and ballast in the proportion of 1 to 6 is stated at 15 to 20 tons per square foot after twelve months' age of the concrete. Such concrete will safely stand a pressure of 50 tons per square foot. But the essential fact is that most concrete foundations have to receive their full load at a much earlier age; and 25 to 30 tons per foot after one month is not too much. It is to be regretted that in London a recent enactment limits the pressure upon all concrete foundations, without discrimination, to 12 tons per square foot—a fact not noticed in the present work, doubtless because its pages were made up before the enactment in question became law.

The author deals fully with the subject of reinforced concrete, with some additions since his previous edition, including extracts from the Institute's Report (1907). Perhaps, in a future edition, some space might be devoted to the reduction in value of the elastic modulus of concrete when subjected to compression.

A whole chapter is devoted to fire-resisting construction, and it may be suggested that the remarks on concrete as a fire-resisting material for purposes of the London Building Acts (Amendment) Act, 1905, which the author includes in the chapter on concrete (p. 43), might more appropriately have found place in the twenty-first chapter at p. 551. In the above remarks he has omitted to mention that 5 inches of concrete between wood floor joists, as well as when used in combination with iron or steel, is deemed to be fire-resisting under the above Act.

The chapters dealing with stones and br icks are copious, the latter containing illustrated descriptions of processes of manufacture. Here it would seem that the particulars of the strength of brick piers should have been included in chapter xiii., dealing with brickwork. The table quoted at p. 130, giving what purports to be the ultimate strength of brick piers having a height of less than twelve times their least thickness, is not of much use, since the greater thicknesses are not given, and one hesitates to think that such degrees of strength apply to square piers of such height.

In a separate chapter on flues, fireplaces and tall chimneys, there is much useful matter, fully illustrated. It is doubtful if many architects would endorse Mr. Mitchell's confident pronouncement at page 299 in favour of 9 inch square flues in preference to those 14 in. by 9 in., "as, on account of the smaller sectional area, a greater draught is created." The size of a flue should be considered in relation to its height, and any increase of lineal velocity through reduction of area is accompanied with reduction of velocity of volume through friction against the sides of the flue.

In the chapter on timber the author deals with conditions of growth, seasoning, conversion, and properties of numerous kinds. In his particulars of the strength of timber (pages 183-4) it would be better if he had given the highest and lowest values found by experiment, the range of variation being probably greater in this than in any other material of construction. The crushing resistances of northern pine, spruce, fir, and teak are all stated at 2·5 tons per square inch; whereas the resistance of teak is usually found to be about 30 per cent. higher than the other two woods. Possibly there is a printer's error here. There is an excellent chapter on carpentry, dealing with the construction of scaffolds, gantries, travellers, and derrick cranes, with ample illustrations. Shoring is also fully treated, except that the common practice of using rolled steel joists as needles is not mentioned.

The great and still growing importance of iron and steel in construction receives due attention in a chapter devoted to these materials and in the chapters on pillars, girders, and roofs. The table of the strengths of iron and steel at page 152 is not as instructive as could be wished. The ultimate tensile resistance of cast iron is stated at 7 to

8 tons per sectional square inch. Mr. Hodgkinson found it in some cases as low as 5 tons, and lower values are recorded. The compressive resistance of mild steel is stated at 22 to 35 tons, followed by the note, "30 usually employed"; but it will be found that the resistance is rarely more than 22 tons, and frequently 25 per cent. less than this. At page 153 it is stated that "It is usual not to let the working load upon a long pillar exceed one-tenth of its ultimate resistance." The phrase "long pillar" is a vague one. With regard to cast-iron, the rule will apply well enough, but with mild steel a factor of 4 is in frequent use up to 40 diameters in height.

The useful and instructive chapter on girders is preceded by one on graphic statics, which should claim more attention from students than the subject usually receives. It is to be regretted that the formula (misprinted "formulæ") at page 466 is not correctly stated in the following paragraph: "The moment of the load must equal the moment of resistance of the material at the instant of breaking; and if M represent the moment, L the load, say, in lbs., and R the ultimate resistance of the material in lbs. per square inch of section, then ML=MR."

Here the author applies the symbol M to two values which are not necessarily equal, involving the conclusion that L=R: a puzzling statement for students.

The subject of sanitation is fully discussed, with new matter and helpful illustrations, in chap. xxvi. Exception may be taken to the principle of building walls to manholes in two separate half-brick thicknesses, as advocated at page 691, to render the manhole less liable to leak. This is of little advantage unless a layer of asphalte or other impervious material is provided between the two thicknesses. It would be better to carry up 9-inch walls, properly bonded and treated with asphalte on the faces next to the earth.

Space does not admit of a more detailed notice of this voluminous work, which comprises almost every branch of its subject. There is an appendix containing examination questions set by the Institute and other societies, and there is a copious index.

GEORGE H. BLAGROVE.

AMERICAN COMMITTEE'S REPORT ON REINFORCED CONCRETE.

In 1903 the American Society of Civil Engineers—a Society which corresponds to our Institution of Civil Engineers—appointed a committee to consider the question of steel and concrete in co-operation with other Societies interested in the subject. This committee, which included many of the best known American authorities, has issued an interim report, which is given *in extenso* in *Concrete and Constructional Engineering* for October.

The Report of the Royal Institute of British Architects is now very largely used here and in the British Colonies, and it is a matter of some interest to compare the two documents.

The British Report was issued on 27th May 1907, some two years before the American, and the increase in knowledge and experience in that time may well lead to variation on the views previously held. The main propositions advanced in the Report adopted by this Institute are, however, found unaltered in the American Report.

The opening paragraph in it reads: "The adaptability of concrete and reinforced concrete for engineering structures, or parts thereof, is now so well established that it may be considered one of the recognised materials of construction. It has proved to be a satisfactory material, when properly used, for those purposes for which its qualities make it particularly suitable."

Fears as to its durability and the damage of corrosion of the reinforcement by various causes have restricted the use of this material by our people, more especially as the Local Government Board refused in granting loans for public works to consider reinforced concrete structures as having the same life as other structural materials.

The Council of the Institute, in reply to a question addressed to them by his Majesty's First Commissioner of Works, gave the view of its Science Committee that there was no reason to fear decay or injury with proper material and workmanship, and it is interesting to find these views confirmed in the following paragraphs of the American Report:—

"4. Destructive Agencies: (*a*) Corrosion of Metal Reinforcement.—Tests and experience have proved that steel embedded in good concrete will not corrode, no matter whether located above or below fresh or sea water level. If the concrete is porous so as to be readily permeable to water, as where the concrete is laid with a very dry consistency, the metal may be corroded in the presence of moisture.

"(*b*) Electrolysis.—There is little accurate information available as to the effect of electrolysis on concrete. The few experiments that are available seem to indicate that concrete may be damaged through the leakage of small electrical currents through the mass, particularly where steel is embedded in the concrete. These experiments are not conclusive, however, and the large number of reinforced-concrete structures subject to the action of electrolysis, in which the metal and concrete are in perfect condition, would seem to indicate that the destructive action reported was due to abnormal conditions which do not often occur in practice.

"(*c*) Sea Water.—The data available concerning the effect of sea water on concrete or reinforced

concrete are inconclusive and limited in amount. There have been no authentic cases reported where the disintegration has proved to be due entirely to sea water. The decomposition that has been reported manifests itself in a number of ways; in some cases the mortar softens and crumbles, in others a crust forms which in time comes off. It has been found, however, that where concrete is proportioned in such a way as to secure a maximum density and is mixed thoroughly, it makes an impervious concrete, upon which sea water has apparently little effect. Sea-walls have been standing for considerable lengths of time without apparent injury. In many of our harbours, where the water has been rendered brackish through the rivers discharging into them, the action that has been reported has been at the water line and was probably due in part to freezing.

"(*d*) Acids.—Concrete of first-class quality, thoroughly hardened, is affected appreciably only by strong acids which seriously injure other materials. A substance like manure, because of the acid in its composition, is injurious to green concrete, but after the concrete has thoroughly hardened it satisfactorily resists such action.

"(*e*) Oils.—When concrete is properly made and the surface carefully finished and hardened it resists the action of such oils as petroleum and ordinary engine oils. Certain oils which contain fatty acids appear to produce injurious effects.

"(*f*) Alkalies.—The action of alkalies on concrete is problematical. In the reclamation of arid land, where the soil is heavily charged with alkaline salts, it has been found that concrete, stone, brick, iron, and other materials are injured under certain conditions. It would seem that at the level of the ground water such structures are disintegrated—possibly due in part to the effect of formation of crystals resulting from the alternate wetting and drying of the surface of the concrete at this ground water line. Such destructive action can be prevented by the use of an insulating coating which will prevent this action from taking place."

There are differences in regard to minor matters: for instance, 97 lbs. of cement is taken as the equivalent of a cubic foot instead of 90 lbs.; the width of slab acting with the rib in a T beam is restricted to a quarter of the span in place of one-third, and is also limited so that its overhanging width on either side of the beam shall not exceed four times the thickness of slab.

In regard to fire protection, it is pointed out (as in the Royal Institute Report) that the amount of protective covering required depends on the degree of heat to which the structure may be exposed. A two-inch covering for girders and columns, one and a half inch for beams, and one inch for floor slabs, is recommended for ordinary conditions, conforming to our own advice.

Various points upon which the British Committee were unable to come to a unanimous finding, and consequently omitted from the report, are dealt with.

This confirmation of the findings of the Institute's Committee by an independent body of American engineers, working with the fuller knowledge of recent years, is a matter of congratulation.

The Institution of Civil Engineers, which declined to join with us in the inquiry of three years ago, has appointed a committee of its own to deal with the matter, and it will be interesting to see what conclusions it arrives at.

WILLIAM DUNN [*F.*].

THE LATE CHARLES FOLLEN McKIM.

It was with great interest that I read the "personal note" by Sir Aston Webb on the late Charles Follen McKim in the JOURNAL of 16th October. It was so exquisitely done that it may seem invidious for me to attempt to add anything further; but as one who had the special privilege of coming into close contact with Mr. McKim for a period extending to nearly three years I may be permitted to add my personal note.

We were appointed joint architects in conjunction with Mr. Mead for a large and important building in Canada, and in the course of collaboration I came greatly to admire Mr. McKim's many-sided admirable qualities and genius. On my numerous visits to New York I always received the most kindly reception, and the charming feeling of comradeship with which he always treated me was keenly appreciated. From the acknowledged pre-eminent position he justly held amongst the profession in the United States, he might naturally have overpressed his opinions and wishes on one who frankly felt his own inferiority, but I never found him to be anything but most considerate in all our deliberations. He occasionally came up to Montreal, and we then had the most enjoyable times together. I never met anyone who had greater persuasive powers with committees and clients, and I remember on one occasion when we desired to carry out a special scheme which was not very favourably viewed by our clients, the very adroit and clever way in which he carried his point and triumphed was something good to remember. He impressed his strong personality on men, not by pushfulness or by arrogance—quite the contrary, for he was always quiet, most refined and gentlemanly—but by the force of the beauty and significance of his ideas and expression, which he had the rare faculty of presenting in the most charming way.

I remember his telling me that one of the most interesting and at the same time difficult pieces of work he had to do was the restoration of the White House at Washington in 1902, in which President Roosevelt took the greatest interest. This was carried out most successfully. The original archi-

tect of the White House was James Hoban, a native of Dublin, whose designs were selected in competition in 1792. In President Roosevelt's message to Congress in 1903 he said: "Through a wise provision of the Congress the White House, which had become disfigured by incongruous additions and changes, has now been restored to what it was planned to be by Washington. In making the restorations the utmost care has been exercised to come as near as possible to the early plans and to supplement these plans by a careful study of such buildings as that of the University of Virginia which was built by Jefferson. The White House is the property of the nation, and, so far as is compatible with living therein, it should be kept as it originally was for the same reasons as we keep Mount Vernon. The stately simplicity of its architecture is an expression of the character of the period in which it was built, and is in accord with the purposes it was destined to serve: it is a good thing to preserve such buildings as historic monuments which keep alive our sense of continuity with the nation's past."

The restoration was refined and scholarly and carries out the idea of a stately old Colonial mansion. Mr. McKim was criticised for not making it much more gorgeous and grand internally, but his work had, I think, the approval of all for whose approval he cared. The report of the architects and the message of the President to the Senate on the subject, with a large number of illustrations and scale plans and photographs of the restorations, were printed for private use in book form, and I was much gratified by Mr. McKim presenting me with a copy,—which I greatly value, with his written characteristic inscription on the fly-leaf,—"From one fellow to another. New York 1903."

Another work into which he threw himself with all his strong force was the design for the improvement of Washington. He had been selected by the Government along with Mr. Burnham of Chicago and Mr. Olmsted to undertake this. They travelled over Europe, visiting a number of cities; it was largely left to Mr. McKim, I believe, to embody their ideas, and with his customary thoroughness he took special offices over the firm's offices and engaged a special staff for the work. It was my privilege, on one of my visits, to be shown by Mr. McKim his elaborate and beautiful drawings for this great scheme as they were in course of preparation, and I remember Mr. Mead, his partner, saying laughingly to me—"You are in luck, as I have not seen the drawings myself!" I was informed that this work was entirely honorary, and no remuneration was paid beyond expenses, but I do not think that mattered to Mr. McKim; he was a true artist in his love for the work itself, independently of dollars and cents.

The three members of the firm of McKim, Mead, and White were each remarkable men. Mr. Stanford White I had no professional dealings with, but often saw him. His vitality and energy were amazing; generally in his shirt-sleeves in the office, he was always on the rush, often on the run,—eager, brilliant, unpractical, impatient of limits and conventions; generally his motor-car was at the door waiting to whisk him off to some work. Of the three, Mr. Mead only is left, and of him also I saw a great deal during nearly three years of our most pleasant collaboration. An extremely able architect himself, he was more practical than either of the others, and kept them from soaring too far out of sight. Personally he is a most delightful man, and I am glad of this opportunity of paying this tribute to a friendship that will always be dear to me.

Some years ago, after the death of Mr. White, four of the brightest of the young men in their office were taken into partnership, and they will, I feel sure, second Mr. Mead in worthily carrying on the best traditions of the firm.

ANDREW T. TAYLOR [*F.*], L.C.C.

CORRESPONDENCE.

CASTS AT THE BRITISH MUSEUM.

Sarcophagus of Alexander Severus.

British School at Rome, Palazzo Odescalchi, Piazza SS. Apostoli, Rome: 12 *Nov.* 1909.

To the Editor JOURNAL R.I.B.A.,—

SIR,—In reply to Mr. R. Langton Cole's letter on page 743 of Vol. XVI. of the JOURNAL, may I be allowed to point out that Piranesi is only reproducing the account of the discovery of the vase which was current in his own day. The official record of the sitting of the Communal Council of Rome on 4th May 1582, published by Professor Lanciani in the *Storia degli Scavi* (ii. 87), proves that the sarcophagus had by that time already been discovered, inasmuch as the possibility of its purchase for the municipal collections was then considered, though it was not actually acquired until 1590. There is, on the other hand, no mention of the vase until 1642, and it was not until 1697 that Pietro Sante Bartoli definitely committed himself to the statement that the vase was found in the sarcophagus. Had this been true, the vase would certainly have been mentioned in the description of the discovery of the sarcophagus by Flaminio Vacca. That it should have lain unnoticed in the sarcophagus until the time of Urban VIII. (1623–44) is inconceivable, as I now recognise, though I admitted this possibility in *Papers of the British School at Rome* (iv. 53). These facts were fully set forth by Mr. H. Stuart Jones at an open meeting of the School on 1st February 1909, reported in *Athenæum*, 27th February 1909, p. 265, and *Builder*, 13th February 1909, p. 174.—Yours faithfully,

THOMAS ASHBY.

"THE CHURCH ORGAN."

JOURNAL, 6th November, p. 25.

Haileybury College, Hertford: 11th November 1909.

To the Editor JOURNAL R.I.B.A.,—

SIR,—The Report of 1891, to which Mr. Statham kindly refers me, I am quite familiar with. There seems to be no reason for retracting anything I said in my inadequate notice of his excellent book, though I may add that, in the case of a college or private chapel we have a decidedly different, and, in many ways, more favourable, aspect of the problem from that which presents itself in the case of a parish church. The latter was in my mind when I wrote the sentence to which Mr. Statham alludes, and it would be interesting to know how far, during the last eighteen years, such recommendations of the Committee as would involve considerable departure from normal planning have been substantially adopted, even in the case of new churches.—I am, yours obediently,

F. H. CLIFFE.

THE R.I.B.A. SCALE OF CHARGES.

To the Editor JOURNAL R.I.B.A.,—

SIR,—It is quite cheering to read the letter of "A Fellow" in the JOURNAL of 6th November. If only the scale of charges which he enumerates could be brought to pass architects would be in a fair way to receive adequate remuneration for their labours. Unfortunately at the present time there is an increasing demand that architects should take less than the commission of 5 per cent. now recognised by the Institute as the proper fee. I have in my mind at the present time the names of two architects, one an Associate of the Institute, who invariably take their work at 3 per cent. to 4 per cent., and so tend altogether to lower the tone of the profession. Personally I think that before the Council issue a new scale of charges they should insist that every architect who has the proud privilege of being a member (of whatever class) should not take work at less than the agreed scale, under pain of expulsion or some other penalty. I need not point out how absurd and misleading it is to the general public for Institute men and other architects to accept lesser fees. Besides completely spoiling "the market," it is mean and despicable to undercut one's "brother chip." "What can't be cured must be endured," but the Institute have it in their power to redress this growing evil. Will no one on the Council take it up?—I am, Sir, yours faithfully,

ANOTHER FELLOW.

In the distribution of His Majesty's Birthday Honours a knighthood was conferred upon Mr. James Lemon [*F.*], M.Inst.C.E., whose labours have contributed so greatly to the advancement of Southampton.

9 CONDUIT STREET, LONDON, W., 20*th November* 1909.

CHRONICLE.

Presentation of Mr. Collcutt's Portrait.

Prior to the reading of Mr. Triggs's Paper last Monday the interesting function was performed of unveiling and formally presenting to the Institute the portrait of Mr. Thomas E. Collcutt, *President* 1906–1908. The portrait, an admirable and striking likeness, has been subscribed by members of the Institute and is the work of Mr. A. S. Cope, A.R.A.

The PRESIDENT, in accepting the portrait on behalf of the Institute, said that this addition to its portrait gallery, though the last, was by no means the least of its treasures. They were all very glad to have a memorial of Mr. Collcutt's Presidentship. He had always been a sincere friend of the Institute both in office and out of office. In Mr. Collcutt's presence he could not say the things he was tempted to say about him; they all felt, however, that in him were united qualities which ought to be united in every architect, but which very seldom were. He was a thorough man of business, a man of affairs, a man with the soundest judgment, and at the same time a consummate artist. Mr. Collcutt, he thought, would esteem himself fortunate in being handed down to posterity in the beautiful portrait Mr. Cope had painted for them. While engaged in the work the artist, he understood, had received alternate sittings from the Royal Patron of the Institute and from Mr. Collcutt. In the portrait Mr. Collcutt was seen wearing the Royal Gold Medal which the Institute had awarded him, and for that reason, he believed, he was represented in dress-clothes; the artist, however, had put him in a crumpled shirt-front to give the pleasant *négligé* air of the sitter. They all thanked Mr. Cope most heartily for the beautiful work he had produced.

Mr. JOHN SLATER [*F.*] said they must all agree that the portrait was a most agreeable addition to the galaxy which adorned their walls. He could add nothing to what the President had said as to the appreciation of members of Mr. Collcutt's services as their President. Mr. Collcutt, he

believed, was a little bit shy at accepting the office; but he had filled it in a manner that must have gone to the heart of every member of the Institute. He could only echo the President's words in congratulation of Mr. Cope on the charming portrait he had given them; and they might also congratulate Mr. Collcutt on being handed down to posterity in such a beautiful work of art.

The Proposed St. Paul's Bridge and Widening of Southwark Bridge.

A special meeting of the Court of Common Council was held last Monday at the Guildhall to discuss the report of the Bridge House Estates Committee relating to bridge accommodation in the City. The Bridge House Estates Committee recommended (1) the construction of a new bridge at an estimated cost of £1,646,983; and (2) the reconstruction of Southwark Bridge to the width of Queen Street Place, at a probable expense of £261,000, it being understood that the alterations to Southwark Bridge should be proceeded with as soon as Parliamentary powers were obtained.

Mr. Deputy Algar, in moving the adoption of the report, said the Committee did not regard the widening of Southwark Bridge as a solution of the traffic question. The Royal Commission on London Traffic strongly advocated a new bridge, with a direct north to south thoroughfare. Southwark Bridge was not the place where the general north and south traffic could be relieved. With the rapidly changing conditions of modern locomotion and transit a new bridge with an adequate approach had become an urgent necessity.

Mr. W. W. Green moved as an amendment that the Court should agree only with as much of the Committee's report as related to the widening of Southwark Bridge. He said that the suggested new bridge would seriously affect and impede the traffic from east to west, which included the traffic from the docks and the Port of London.

Mr. A. C. Morton, M.P., said that if the Corporation went to Parliament with the Southwark Bridge project alone they would probably be laughed at as making a quite inadequate proposal in view of the report of the Royal Commission.

On a division the amendment was lost by 95 votes to 60, and the Committee's report was carried.

Canterbury Cathedral.

The Dean of Canterbury, Dr. Wace, in a recent letter to *The Times*, supplements Mr. Caröe's letter (reprinted in the last number of the JOURNAL) with some account of the ancient wall paintings at Canterbury to which Mr. Caröe referred. These paintings were disclosed in the course of some necessary repairs in the remains of the Infirmary Chapel which was part of the old Benedictine Monastery of the Cathedral.

This Infirmary Chapel, of which some arches and windows remain outside the Cathedral on its north-west corner, dates from about 1140 A.D. The Northern Sanctuary of the Chapel, clearly shown upon an original Norman drawing still in existence, was barrel-vaulted, the walls and the vault being covered with paintings upon plaster after the manner of the time. But about 1340 the Norman Sanctuary was converted into the architectural style of that date; and, in the process, the earlier walls were thickened by the addition on the inside of a skin of walling 18 inches thick. Thus the old Norman wall paintings were covered; and where the new wall was tied to the old by bonding the paintings were destroyed. But where the bonding was not applied the paintings were simply covered over by the new wall, and some of them remain to this day virtually intact.

The paintings may now be seen in the very condition they had assumed after exposure on the old walls for some two hundred years, in what was probably the purer atmosphere of those days. The colours are wonderfully bright, fresh, and unfaded. Upon the vault are two angels in an attitude of adoration, probably towards some representation of our Lord's figure which would be painted in the centre of the vault, or possibly in the vault of the apse. Beneath the angels is a circle, enclosing a dog and a ram, one superimposed upon the other. Upon the wall is the figure of a soldier in chain armour and a gorgeously decked blue surcoat, together with portions of the figure of the Blessed Virgin with the Holy Child in her arms. The foot of the Virgin is well and gracefully portrayed in a very realistic manner.

Dr. Wace renews his appeal for the considerable sums which are still needed for repairing the Western Towers of the Cathedral and for some internal work, such as strengthening those piers of the Central Tower of which the condition is described in Mr. Caröe's letter. Of the £20,000 appealed for, only £5,000 has been received, and the greater part of this has been already expended.

Winchester Cathedral.

Owing to lack of funds the Winchester Cathedral authorities have decided to curtail the operations at present proceeding, and a substantial reduction of the staff employed has been made, only about forty or fifty hands being retained to carry on absolutely necessary work at the central tower and the north and south transepts. The recent appeal by the Dean for £23,000 to complete the work has brought in subscriptions amounting to about £5,000. A sum of about £18,000, however, is still required, and until there is a substantial response the work on the nave aisles will have to remain in abeyance. The work of underpinning at the transepts, which is absolutely imperative, will go on, but the Dean and Chapter are determined to avoid incurring debt.

London Building Acts Amendment Act 1909.

The London County Council (General Powers) Act 1909 became law after the Royal Assent on the 16th August last, and Mr. Batsford is issuing in pamphlet form sections 20 to 27, composing Part IV., Amendment of the London Building Acts. Section 22 comprises thirty-five sub-sections relating to buildings of iron and steel skeleton construction, and the foundations, walls, floors, staircases and other parts of the structure. These sub-sections set out regulations for calculating constructive metalwork in different classes of buildings; the working stresses to be adhered to in future for cast iron, wrought iron, and steel; the pressures to be allowed on brickwork and foundations of different kinds, &c. Section 23 empowers the London County Council to make regulations for the use of reinforced concrete in the construction of buildings. Section 25 adds to the Tribunal of Appeal a fourth member, to be appointed by the Council of the Institution of Civil Engineers. The pamphlet under notice forms Appendix VI. to Messrs. Banister [*F.*] and H. Phillips Fletcher's *London Building Acts*, 4th edition, and is published at 6*d.* net.

Millenary Celebration at Glastonbury.

A facsimile reproduction is to be published next month of the beautifully illuminated Address presented to the Princess of Wales on the occasion of the Millenary Celebration at Glastonbury Abbey last June. The publication is the work of the Glastonbury Guild of Sacred Art, and will consist of ten sheets, upon which will be faithfully portrayed the texture and handiwork of the artists, the whole tastefully bound in covers. The Address, which was composed by Mr. Bligh Bond, takes the form of a welcome from the monks of the olden time; it is couched in the style of the later years of the fifteenth century, and gives an imaginative description of the ancient glories of the Abbey Church. The black-letter was written by Mr. Bligh Bond, and the illumination designed and executed by the Rev. R. Jeffcoat, of Bristol. The edition will be limited to 150 copies, at the subscription price of one guinea a copy. The publisher is Mr. E. Everard, 38 Broad Street, Bristol.

The late Thomas Worthington [*R.F.*].

At the General Meeting of the Institute last Monday the decease was formally announced of Mr. Thomas Worthington, of Manchester, Fellow since 1865, and past Vice-President. Mr. Henry T. Hare, *Hon. Secretary*, in making the announcement, recalled Mr. Worthington's long connection with the Institute, which dated back to his young student days in 1846, when he was awarded the Silver Medal for an Essay on the History and Manufacture of Bricks. On the motion of Mr. John Slater [*F.*], seconded by Mr. Edwin T. Hall [*F.*] and supported by Mr. J. J. Burnet, A.R.S.A. [*F.*], the Meeting resolved that a message of sympathy and condolence be addressed on behalf of the Institute to the family of the late Fellow. A memoir of Mr. Worthington has been very kindly undertaken for the JOURNAL by Mr. Paul Ogden, and will appear in an early issue.

COMPETITIONS.

Workington Technical School Competition.

Members of the Royal Institute of British Architects are requested not to take part in the above Competition.

By order of the Council,
IAN MACALISTER, *Secretary.*

17*th November* 1909.

ALLIED SOCIETIES.

Leeds and Yorkshire Architectural Society.

The first general meeting of the winter session was held at the Society's rooms, Park Street, Leeds, on the 4th November. The President, Mr. Percy Robinson [*F.*] announced the results of the Society's Annual Competitions, which, although lacking the keenness of previous years, had called forth work of a higher standard, the selection of sketches exhibited being particularly good. The prizes were awarded as follows: Silver Medal and President's Prize for Measured Drawings to Mr. P. de Jong; Prize for Design to Mr. P. de Jong; Prizes for Sketching and Construction to Mr. J. H. Farrar; Prize for Essay to Mr. F. Seatchard; Holden Prize for Testimonies of Study to Mr. F. L. Kruckenberg.—Sketching Club Competitions: Prize for best set of studies of ancient buildings awarded to Mr. G. H. Foggitt; Prize for best set of Sketches to Mr. P. de Jong; Prize for second best set of Sketches (consolation prize) to Mr. C. T. Whiteley.

At the annual gathering of the Society at the Queen's Hotel, Leeds, on the 11th November, Mr. Percy Robinson [*F.*] delivered his Presidential Address, from which we give the following extracts:—

The Town Planning Bill is still before Parliament, and is receiving the usual buffeting about which invariably falls to the lot of controversial matters or legislation introducing new principles and ideas. It is to be hoped, however, that the Bill will not be sacrificed to meet the exigencies of the political situation, because whatever opinions there may be upon the methods of procedure and minor details, there is no doubt that the vital principle is good, and we, as architects, ought certainly to endorse it.

Speaking on this matter last year, I suggested that the local Advisory Committees proposed to be formed in connection with town-planning schemes might be useful, not only in connection with the immediate object in view, but that the scope of their work might well be extended to watching over the artistic amenities and evolution of our towns and cities in other directions.

This idea has taken a concrete form in New York, where, at the instance of the late President, Mr. Roosevelt—following a suggestion made by the Ameri-

can Institute of Architects of Washington—a Council of Fine Arts has been created, and directions have been issued that for the future "before any plans are formulated for public buildings or grounds, or for the location or erection of any statue," the heads of Executive Departments, bureaus and commissions must submit the matter to the Fine Arts Council and follow their advice, "unless for good and sufficient reasons the President directs otherwise." We have, in such an action as this, evidence not only of the enterprise of our brethren across the seas, but of their growing appreciation of architectural art, and it is an example that we might copy with advantage.

Leeds, like many other cities, has grown in a haphazard fashion without any definite plan of development, and, as a result, we are suffering in all directions at the present day from this lack of foresight. We have dog-legged streets wandering about in an apparently aimless fashion and leading to nowhere in particular. We have our public buildings scattered about in all directions and cramped up on ill-considered sites. Our library and art gallery are in a back street, and our latest acquisition, the statue of Queen Victoria, is stranded on its pedestal in a desert of cobble pavement without any relation or connection with its surroundings. All this is due to the lack of a properly thought-out comprehensive scheme in the beginning.

Civic art has even a commercial value quite apart from the influence it may have on the lives of the citizens. This fact is usually lost sight of by the man who is absorbed in business pursuits: he fails to realise that it pays to have beautiful streets and beautiful cities, but such is undoubtedly the case, and if Leeds is to become the shopping centre of the North, which is the ambition of our tradespeople, it is well that they should bear this in mind and do all in their power to render it attractive.

Then again had our cities been developed on town planning lines there would have been other and more tangible results which would appeal more directly to the average ratepayer. Enormous sums of money would have been saved which have been spent in street improvements and in undoing what has been done, whilst profits might have been made from the acquisition of undeveloped land. In several German cities no rates are levied because long ago they foresaw the direction of the growth of the suburbs, acquired land for new thoroughfares, and bought cheap land the rent of which now pays for the public services.

If we were able to start *de novo* with the assistance of a Town Planning Bill and the advice of a Committee such as has been suggested we might produce a very different Leeds from that which exists to-day, but our efforts are perforce restricted to making improvements as opportunities arise. Much good work has already been done in this direction. The centre of the city has undergone a considerable transformation of late years, and at the present time a great area of insanitary buildings is being demolished and the district remodelled under the guidance of one of our members, Councillor G. F. Bowman, who is Chairman of the Development Committee.

The work executed by our students shows a distinct advance year by year, not only in draughtsmanship and a grasp of constructive principles, but it shows evidence of independent thought, new ideas, and above all, ambition. The future of our art is in the hands of youth, and youth without ambition is an empty vessel: it is therefore encouraging to see these signs of new developments and the setting up of new ideals. Whilst we must recognise that we cannot cut ourselves entirely adrift from tradition, that the study of old work must be our starting-point, yet we must also remember that it is only a means to an end and not the end itself. Raking up the dry bones of the past will never produce a living structure, but we may draw upon the past so far as it will help us to solve the problems of the present and enable us to devote our strength to scaling new heights of achievement.

The desire for distinction of some kind tempts one at times to leave the beaten paths and to enter on experiments in new and unfamiliar methods. Such a course demands courage, and inevitably leads to many risks and disappointments, but its tendency must be good in that it implies a desire for progress; and it is possible that this spirit which permeates the rising generation of architects, combined with the introduction of modern conditions and methods of construction which demand something outside the traditional forms of expression, may be the means of carrying forward our art in a manner comparable in some degree with the most active periods of architectural evolution.

The greatness of Greek art is due partly to the fact that it was not fettered by tradition but was free to develop in the way that suited it best and to establish its own principles, and partly to the favourable conditions and spirit of the age. The Greeks lived in a beautiful world which influenced and found expression in their works. But there is beauty in every age; even now in our restless modern life beauty is to be found by those who seek it, and the student cannot set himself a greater ideal than to produce an architecture true to and expressive of the life of to-day, to grapple with the complex and difficult problems which arise out of these modern conditions, and turn what appears to be a restriction into an advantage, to mould his difficulties into success and triumph over his imposed conditions. This is the spirit which, if constantly pursued, is bound eventually to lead to achievement.

MINUTES. II.

At the Second General Meeting (Ordinary) of the Session 1909-10, held Monday, 15th November 1909, at 8 p.m.—Present: Mr. Ernest George, *President*, in the Chair; 42 Fellows (including 19 members of the Council), 34 Associates (including 2 members of the Council), and numerous visitors, the Minutes of the Meeting held 1st November 1909, having been published in the JOURNAL were taken as read and signed as correct.

The Hon. Secretary having announced the decease of Thomas Worthington, of Manchester, *Fellow* and *Past Vice-President*, the Meeting resolved that the regrets of the Institute for the loss of its distinguished Fellow be entered on the Minutes and that a message of the Institute's sympathy and condolence be conveyed to his family.

The President unveiled and formally accepted for the Institute a subscription portrait of Mr. Thomas E. Colleu tt, *Past President*, painted by Mr. A. S. Cope, A.R.A.

A Paper by Mr. H. Inigo Triggs [*A.*] on THE PLANNING AND LAYING-OUT OF PUBLIC PLACES having been read by the Secretary in the absence of the author, and illustrated by lantern slides, a discussion ensued and a vote of thanks was passed to Mr. Triggs by acclamation.

The proceedings closed, and the Meeting separated at 10 p.m.